

Dialog®

Core FT2:

Dialog Global Reporter, File 20 (May 1997 - present)

The McGraw-Hill Companies Publications Online, File 624 (1985 - present)

Gale Group New Product Announcements/Plus? (NPA/Plus, File 621 (1985 - present)

Gale Group Newsletter Database?, File 636 (1988 - present)

PR Newswire, File 613 (May 1999 - present)

San Jose Mercury News, File 634 (Jun 1985 - present)

PR Newswire, File 813 (May 1987 - May 1999)

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Feature - Utilities Special - 50 top free utilities.

Gordon Laing. PC WORLD, p 83 October 01, 2002

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Utilities are the unsung heroes of computer software; tiny programs whose features may pale compared to bloated suites, but continue to save the day, time after time. Want to convert some file formats? Optimise your system's performance? Eliminate nasty viruses? Unzip or decompress those files? You need a utility. What about a bit of spring cleaning?

Perhaps enhance the capabilities of your web browser? Some kind of programming tool perchance? Once again it's utilities to the rescue.

To celebrate these invaluable tools we've polled the PCW office and come

up with our top 50 list of utilities, from the genres of graphics, Internet, security, hardware, privacy, multimedia and Windows, along with five essentials we simply can't live without. Best of all, you can find most of them on our cover disc, saving you hours of downloading time.

The one condition that separates this feature from previous round-ups is that we've selected utilities that are either free of charge, or at worst, just nag you to register from time to time. Many traditional favourites have been eliminated as they've turned into 30-day timed trials and, as such, are really no different from demos of commercial applications.

Since many utilities are produced by computer enthusiasts, rather than big companies, you may find their licences or web addresses change. If you're having difficulty tracking one down at the addresses stated, head to one of the popular download sites such as www.tucows.com, www.download.com, or our very own www.pcw.co.uk/downloads.

As with all top 50 lists, there will inevitably be many who'll argue with our choices, or disagree about where we draw the line between utilities and applications, but that's part of their charm. Many users are far more passionate about their favourite utilities than any application or suite, defending products such as Winzip and Winamp to the hilt. If you feel we've missed an essential piece of genuine freeware, do write and tell us. In the meantime though, please welcome our top 50!

MUST HAVES

Winzip

www.winzip.com

If you only ever download one utility, make it Winzip. The Zip format allows one or more files (including sub-folders) to be stored within a single archive. This archive is then automatically compressed, after which it's perfect for long-term storage or transmission over the Internet.

The Zip archive file can subsequently be opened to reveal its files and folders in perfect condition. It's no wonder this format dominates web downloads, including a number of the utilities featured here.

Winzip allows you to create your own Zip archives, or simply open other people's. Large archives can be split into manageable portions, to fit onto **separate** floppies, CDs or overcome **file**

limitations on some email systems. Zip archives can be password-protected for security, while good integration with Windows sees Zip options offered throughout Explorer. Installing Winzip should be compulsory.

Real-one Player

www.real.com

There can be few people who haven't heard of Realplayer, and while the latest Real-one version is happy to handle audio and video files from your hard disk, it's happiest streaming exclusive content from the Internet.

While much of this remains free (such as many international radio stations), Real Networks is clearly focusing on selling subscription-based access to streaming video clips and services. To watch these, you'll need the Real-one Superpass, which costs \$9.95 (GBP 6.70) per month.

The Real website is designed in such a way that you could easily find yourself accidentally downloading the timed trial of the Real-one

Admittedly you can later opt out of it, but to access the hassle-free, if lesser-featured version straightaway, click on the discrete **link** labelled Free Real-one Player. It may not let you watch Real's subscription-based **content**, but there are still plenty of free channels to point your equally free player towards.

Internet Explorer 6

www.microsoft.com/downloads

The domination of Internet Explorer was certainly helped by the fact that it's installed as standard with Windows, but to be fair, there's no denying it's still a world-class product.

Version 6 already comes packaged with Windows XP, but also runs on

Windows 98 onwards. Improved privacy controls help you keep track of cookies on a site-by-site basis if necessary, thereby ensuring your information and preferences are kept private. A new image toolbar appears when your mouse hovers over a picture, allowing you to instantly save, print or email it, along with the facility to scale the image to fit in the Window. The Media Bar allows you to play clips without opening a new window, although in our experience, this doesn't always work too well. Although these are small improvements they continue to make Internet Explorer a justifiable download for many Windows users.

Winamp

www.winamp.com

While most of today's players are fighting for all your media, be it video, audio, streaming or otherwise, Winamp has stuck firmly to core values: namely managing and playing audio alone.

It's a great-looking audio player, with a graphic equaliser, spectrum analyser and a number of plug-in visualisations, which can keep you amused for hours. This brings us to the playlists, which really could end up playing music for hours or days if desired.

Winamp is most popularly used as an MP3 player, but also natively supports MP2, wav, wma, cda, Audiosoft secure MP3, along with a selection of **digital** synthesised music formats and Midi files. Indeed once you've used Winamp for audio, you'll leave the other media players to argue over video and streaming. After all, if the installer is to believed, 192,378,859 downloads can't be wrong.

Acrobat Reader

5.0.5 www.acrobat.com

'What good is a document you can't open?' asks Adobe on its website. Adobe's solution is to use its Acrobat program to convert any document into the Portable Document Format (pdf) after which it can easily be transported and opened by an Acrobat reader on multiple platforms. The pdf format ensures text and graphics closely resemble those in the original document, even if the recipient doesn't have the same fonts.

To view pdf files you'll need a copy of the free Acrobat Reader, which also integrates itself into your browser. This allows you to download and view one page at a time if required, although impatient readers will prefer to download the whole pdf file and flick at their own speed. When downloading Acrobat Reader, we recommend ticking the option to include the searching of pdf files - this may be a longer download, but is an invaluable extra. However, if you want to create your own pdf files, you'll need to buy the full version of Acrobat.

HARDWARE

WCPUID

www.h-oda.com

WCPUID is quite simply a legend in hardware circles. This compact utility displays invaluable information about your system, concentrating on processor and bus speeds. As such, it has become the standard to check exactly what processor you're running, whether it's being pushed a little too hard by an unscrupulous supplier, or simply to prove how far you've overclocked your chip.

Delve beyond the main page though and you'll find detailed information on your main chipset, memory, cache, graphics chipset, motherboard and extended instruction sets supported by your processor. It really is the easiest way of discovering what's under the hood of your PC, without opening the case.

One word of warning though: with new processors arriving all the time, WCPUID finds itself subsequently updated on a regular basis. Obsessive hardware fanatics should therefore download the latest copy at least every few months.

XOSL multi-boot

www.xosl.org

Torn between swapping Windows for Linux? Unsure whether XP is the operating system for you? Maybe you just want two versions of the same OS,

so that other people can use your PC without messing up your settings.

Having multiple operating systems on a single PC can solve all of the above problems and more, but setting this up can often be far from straightforward, especially when three or more operating systems are involved.

Enter the Extended Operating System Loader 9 (XOSL). This lets you easily set up different operating systems on a single PC, and control them with a graphical interface. XOSL also makes it easy to password protect an OS, or hide one entirely from prying eyes.

You will need to set up a separate partition for each operating system though, and keep both the manual and your wits about you, as during installation, some operating systems sneakily disable multi-boot facilities.

Systeminfo

www.networkdls.com

Systeminfo provides basic information about the internals of your PC, including the type of processor, total memory, disk configuration, network data and OS version.

It's not a patch on WCPUID for precision processor clock and bus speeds, but contains a wider range of system information and therefore works well as a complementary utility. Very handy for discovering what's inside your PC and to see how it's running without having to get your hands dirty.

IR Assistant

www.irassistant.com

Today's PCs are fast becoming home entertainment centres, with DVD players, music jukeboxes and even TV recording facilities. This is all very well, but not much fun if you have to use a number of key presses and mouse clicks to launch the required programs and get them working. While we're at it, using cabled mice and keyboards is hardly as easy as operating our domestic TVs either.

IR Assistant solves both problems in one fell swoop. It allows you to create macros to emulate mouse actions, keyboard presses and launch programs exactly the way you want. Better still, these macros can be executed by joysticks, infra-red remote controls or even (with the right hardware) GSM text messages from a mobile phone!

The IR side of things works with a wide range of infra-red modules and it can even learn commands from many popular domestic remote controls.

So before long, your Sony TV remote control could be launching macros on your PC to activate your MP3 collection - great!

Quick Clean Up

www.moreal.net

Whether it's crisps, part of a sandwich or a doughnut, there can be few PC users who haven't managed to drop a piece of rogue food into their keyboard at some time or another.

Of course you could vigorously shake your keyboard, but when it comes to a proper clean, you can't help but depress several keys at once. If your PC is on, it will inevitably complain about this, or if you're really unlucky you could inadvertently modify documents, close applications or even crash your machine.

If you're too busy to shut down your system for cleaning, before restarting and reopening all your applications and documents again, then check out Quick Clean Up. This very basic utility simply disables your keyboard and mouse temporarily so you can shake and wipe to your heart's content, without your PC being any wiser. Crumbs - don't let them get away with it!

We should point out, though, that when it comes to PC equipment, it really is worth crying over spilt milk, or indeed any other liquid. If you spill a drink into your keyboard, you should shut down your system, unplug the keyboard and let it dry out upside down for a short while before attempting to use it again. Even then, we're afraid it may be too late.

WINDOWS

AVG 6.0 Anti-virus

www.grisoft.com

Running anti-virus software is absolutely essential in this day and age, but peace of mind doesn't necessarily have to involve handing over your credit card details. AVG is an anti-virus package that's absolutely free of charge.

It features all the things you'd expect from a commercial anti-virus package, such as updates to recognise the latest nasties, and a scheduler to perform scans at convenient times.

So what's the catch? Well if you want technical support, you'll have to go for the paid-for version. Users of Outlook or Outlook Express will also find a signature at the end of every message stating the incoming or outgoing mail is certified virus-free, along with a link to the Grisoft website. It's a small price to pay for free virus protection though and the signature file can be quite reassuring. However, some users of less common email packages have reported the signature file does not appear.

By default, AVG sets its updater to contact the main database early in the morning. If your PC is not powered up at this time, you may be missing the updates, so either change the scheduler or ensure you update manually every couple of weeks.

Stuffit Expander 7

www.aladdinsys.com

Stuffit Expander was originally to the Macintosh what Winzip was to Windows - namely a means by which files could be compressed for easy transportation, then decompressed at the receiving end.

While Winzip will take care of virtually every type of compressed archive that's sent to a Windows user, there are times when you could receive a format that it can't handle. Most commonly, a Macintosh user could transport a number of files to you in the hqx format, in which case you're stuck. Unless you've got a copy of Stuffit Expander of course!

Aladdin Systems has thankfully produced free versions of Stuffit Expander for Windows, Linux and Solaris platforms, along with Mac OS, which could help you out of a tricky spot. Admittedly, Windows users can count on Winzip for 99 per cent of situations, but having a copy of Stuffit installed will prevent you from being stumped by the remaining one per cent.

Power Toys

www.microsoft.com/downloads

Utilities enhance the features of an operating system, but that doesn't mean the OS developer itself is excluded from the fun. Power Toys is a collection of utilities and tools produced by Microsoft developers after Windows itself has been released to manufacturing. Microsoft takes great pains to point out that the Power Toys aren't part of Windows, and hence unsupported by Microsoft Technical Support, but we've experienced no problems, and found them to be some of our favourite enhancements.

At the time of writing, there were 10 Power Toys available for Windows XP, including a graphing calculator, a self-executing slideshow generator, a webcam controller, and even an Alt & Tab replacement, which showed a preview icon of the actual document being worked on - great when you're running, say, multiple sessions of an Office application.

Our favourite, though, is TweakUI which, as its name suggests, allows you to adjust all manner of aspects of the Windows user interface. TweakUI lets you remove pesky icons or Control Panels which won't otherwise disappear, finely adjust the mouse controls and entirely customise the way an application interacts with the desktop. The XP version may not support the wonderful Paranoia settings of earlier versions, but it and the other Power Toys are still well worth having.

Fresh UI

www.freshdevices.com

The Fresh Devices website offers a number of free utility downloads including a download manager and a diagnostic tool. It's the Fresh UI utility that caught our eye though. At first glance it looks like offering

similar facilities to Microsoft's own TweakUI, but Fresh UI goes several steps further.

It offers a number of (mostly on or off) settings to modify aspects of the desktop user interface from the Start menu to the task tray, but additionally includes sections on network, power management, shutdown and start-up, along with a couple to modify how Windows talks to various hardware devices.

If this sounds potentially ominous, then your concerns are confirmed by Fresh UI's warning that, should your computer hang, you should restart in safe mode and return the offending settings to their defaults. One for the more gung-ho tweakers then.

DirectX 8.1

www.microsoft.com/directx

While not exactly a utility in the same sense as most of the others in this feature, DirectX remains an essential download nonetheless. DirectX is a suite of APIs (Application Programming Interfaces), which allow software to communicate with your multimedia hardware, from 3D graphics and audio to joysticks and mice. Indeed most multimedia devices demand the latest version to be installed for compatibility. The latest version 8.1 works with Windows 98 upwards and is included as standard with Windows XP. See this month's powexpert for more on the future of DirectX.

Folderinfo

www.gemmico.com

As its name suggests, Folderinfo delivers detailed reports about the contents of any folder on your PC. More than just simply right-clicking a folder and requesting its Properties, Folderinfo returns a wealth of data including file name, size, date and allocated space. Cleverly, it'll also tell you immediately what's new in the folder, which is handy for comparing and managing files.

Perhaps best of all for anyone who's previously had to write their own Command prompt program, Folderinfo can output a report in HTML or direct for printing, detailing the precise contents of a folder and any sub-folders within.

Batch facilities can also be used to change multiple file attributes within a folder. A wonderful utility for anyone who needs lists of what's in their folders, or simply wants to keep track of their contents and any changes.

Wordweb

www.wordweb.info

If you've ever felt the Dictionary or Thesaurus in popular Office applications doesn't go far enough, consider installing a copy of Wordweb instead.

This little utility sits patiently in your SystemTray, waiting for you to enter a word. It'll then offer a definition, along with synonyms and even types of, or parts of, the word you've entered.

For example, entering 'tree' will explain that it's a 'tall perennial woody plant having a main trunk and branches forming a distinct elevated crown', but pressing on the Types tab presents a list of every type of tree you've ever heard of and many you haven't. It's also easy and great fun to click on synonyms and find yourself effectively surfing a thesaurus

Wordweb is also a dab hand at solving anagrams and filling in the blanks, but this feature is sadly not available in the free version - crossword fans will need to buy the Pro version for about GBP 12.

Tweaking Toolbox

www.windows-help.net/ttw

Serious tweakers of the Windows user interface could often be entirely satisfied by Microsoft's own TweakUI utility, but with the launch of the XP version, much of the really cool stuff has gone missing.

Fortunately the tweaking gauntlet has been taken up by Tweaking Toolbox, offering a magnificent array of adjustments including removal of clutter or so-called unremoveable components, setting up advanced

restrictions, and ensuring Windows looks and works the way you want it to. A brand new XP version should be ready by the time you read this.

Girder

www.girder.nl

Have you ever found yourself repeating the same actions over and over again? You're probably doing it without even thinking, for example, launching your favourite media player, loading a playlist, adjusting the volume, then pressing Play. Wouldn't it be great if you could perform all of these actions with a single click or key press? Better still, how about activating such actions from a remote control device or even over the Internet?

Girder is a fantastic Windows automation utility that can do all of this and more. Commands are stored in a tree-like structure and are triggered by what Girder calls events.

It can be a little daunting to set up at first, but fortunately Girder is the darling of many enthusiasts who use their PCs as home entertainment centres, and want to emulate the single key-press control of conventional domestic systems. As such you'll find plenty of web forums offering support and advice on configuring it with a vast array of devices. Phew!

Open Office

www.openoffice.org

Okay, we admit it: with a decent word processor, spreadsheet and presentation graphics program, Open Office stands out somewhat against our 49 other comparatively basic utilities. Then again, this feature is about great free software and, if one happens to be a fully fledged office application suite, then who are we to argue?

Open Office will be more familiar to some people as Sun Microsystems' Star Office, which until very recently was a free download. With the launch of Star Office 6, Sun changed its policy: the full office application suite would now cost (a still very reasonable) GBP 50, while a new completely free version called Open Office would be made available at the address above.

Both share the same source code, with a few differences. Open Office does not include the Star Office Adabas D database, certain fonts (especially Asian language ones), some templates and certain file filters. This is because Sun pays to license third-party code in Star Office which it doesn't have permission to give away in Open Office.

But yes, you do get a fully featured word processor, spreadsheet, and presentation graphics program that are all compatible with Microsoft Office, along with an HTML editor, maths and a drawing package. It's the best choice if you're on a tight budget, fancy trying something different or don't want to hand over more money to Microsoft.

INTERNET

Netscape 6.2

www.netscape.com

In 1993, a group of students at the University of Illinois created arguably the first graphical web browser and called it Mosaic. The Mosaic team was lead by Marc Andreessen, who joined Silicon Graphics founder Jim Clarke in 1994 to form Netscape.

Today's latest Netscape version 6.2 is a full online suite consisting of the Navigator web browser, Netscape Mail, Netscape Instant Messenger, Netscape Composer, and Netscape Address Book. All the components are well integrated, as are the alternative mail client, address book and instant messenger from Netscape ally, AOL. Netscape also cites a common look and feel on Windows, Macintosh and Unix platforms as a good reason to upgrade from a 'non-Netscape browser'.

Interestingly, many of the people who chose Netscape to avoid Microsoft are now migrating to Mozilla - see below. Putting politics aside though, Netscape remains a superb browser and a viable user-friendly alternative to Internet Explorer.

Considering the battle Netscape has been waging with Microsoft,

though, the company certainly doesn't make downloading its software particularly obvious. Interested users will have to click on the discrete downloads button in the upper right corner of the front page.

Opera

www.opera.com

For most people, web browsing means using either Internet Explorer or Netscape, but there are other options. Opera is one such alternative and is best known for its compact file size and speed while in use. The non-Java version is certainly quite compact at only 3.4MB, but in our tests with an ADSL connection under Windows XP, it fully opened web pages at the same speed as Internet Explorer 6.

That said, Opera is also good at encryption, supports all the important standards, and offers a built-in facility to suppress all pop-up windows to the background, or not show them at all; this isn't bad, since most pop-up killers require payment of some kind.

Opera is impressively available on OS/2, QNX, Symbian, BEOS, along with the comparatively conservative Linux, Mac OS and Windows platforms. When downloading, you also have the choice of going for a version with or without Java, although the latter measures 11MB.

Mozilla

www.mozilla.org

Back in 1998, Netscape released its web browser code as open source and created Mozilla.org to oversee the process. The name Mozilla was actually a working title for the original Netscape Navigator and was a joke derived from 'Mosaic Killer'.

The first major release of Mozilla arrived in June of this year and is already acquiring many followers. This open-source web browser is currently available for Windows, Mac OS and Linux. The Mozilla.org website freely admits that Mozilla is targeted at the development community, and as an open-source product, any person or company is free to alter and redistribute it **under** the **licence**.

As a browser it's certainly very good, although immediately recognisable as born from the Netscape sourcecode. Indeed the Mozilla toolkit is also being used to develop Netscape. Unless you're a developer or want to be truly unique, though, you're probably better off using Netscape or Opera instead.

Eudora 5.1

www.eudora.com

If you've got a standard Pop-3 or Imap-4 email account, chances are that you're using either Outlook Express or full Outlook to access your messages.

Eudora is an email program which fits somewhere in between, but also offers some features you won't find in either of the Microsoft products.

The latest version supports SSL encryption and authentication, virus warnings on attachments (which can also be dragged straight onto the desktop), along with a Moodwatch facility which can flag words or phrases that could be potentially offensive.

There are three versions of Eudora: paid, sponsored and light. The sponsored version has all the features of the commercial product, but displays adverts, while the light version is missing some features, but is advert-free.

Gozilla

www.qozilla.com

Like DAP, Gozilla is file download manager that claims to accelerate download speeds. Gozilla achieves this by employing a mirror-search database and multi-part downloading, where the desired file(s) could end up being accessed from multiple sources. In our tests Gozilla didn't make a huge difference in download speeds over our ADSL connection but, like DAP, it certainly found the fastest sources and kept track of files.

Downloads can be scheduled, and Zips can be automatically unzipped ready for installation in a single click. A leech facility can also download all the files that make up a website - handy for beginners in web

design.

The free version of Gozilla has adverts and during installation you may also wish to opt out of the annoying Weatherbug.

Google Toolbar

http://toolbar.google.com

Google is without a doubt one of the most popular and successful Internet search engines, and here's a top utility for all those people who just can't get enough of it. Google Toolbar is designed exclusively for Internet Explorer 5 or later and offers you instant access to a variety of Google facilities. First you can use Google from any web page, as well as to drill down within the website you're currently visiting. Further buttons allow you to access Google's image search, Google groups and Google's web directory. There's also a graphical bar representing the page rank.

Download Accelerator Plus

www.speedbit.com

Download Accelerator Plus (DAP) is a download manager that also claims to increase download speeds by up to 300 per cent. DAP performs this trick by locating the most responsive server using a proximity test, and by splitting the file(s) into several segments and accessing them from multiple sources if necessary. In our tests with an ADSL connection, DAP was only faster in a handful of occasions, but always saved you the trouble of manually selecting the fastest or closest server.

More usefully, DAP is also a download manager, which is a tool many of us have forgotten about. Today most people download files into a variety of locations where they can often become lost. DAP keeps track of them all and also provides a handy history of what you've downloaded and when.

DAP will additionally recover and resume a download which has been interrupted by a broken connection. Very handy even if it doesn't necessarily make your Internet connection feel much faster.

INSTANT MESSENGERS

Trillian

www.trillian.cc

The biggest problem with instant messaging, apart from its addictive nature, is deciding which system to go for. AOL Instant Messenger, MSN Messenger, Yahoo Messenger, ICQ and IRC all have their separate merits, but are incompatible with each other. It'd be fine if all your friends were on one system, but more commonly they're spread among them all.

While the big players argue it out, allow Trillian to come to the rescue.

This single instant messaging client is compatible with all of the above systems, and allows you to see which of your buddies are available for chatting from a single list. Trillian won't (yet) allow you to use the more advanced features of each IM system, such as AIM's voice facility, but if all you do is text chat with your buddies, then running one application is definitely better than having four or five cluttering your desktop.

ICQ - www.icq.com

Launched in 1996, ICQ was arguably the first popular instant messaging program that wasn't limited to an ISP's own subscribers. The concept of sending instant messages to any other ICQ user on the Internet took off quickly with one million users after just seven months.

In ICQ, users are still identified by a unique number, which today seems a little old-fashioned. Once you're up and running, though, it feels like any other instant messaging system, where you can chat, exchange files, check out message boards or join specialist user groups.

ICQ also encourages you to find old friends on the ICQ network by searching for names, email addresses or an actual ICQ number. Indeed this process was the inspiration for the name of the program itself: ICQ is short for I Seek You.

The ICQ client isn't as sophisticated as Aim though (see below), so

registered ICQ users may be better off using Trillian instead, which, while also light on features, has the unique facility of supporting multiple IM networks.

AIM 4.8 - www.aim.com

AOL was one of the original pioneers of instant messaging, offering the service exclusively to its members from as long ago as 1989. It wasn't until the launch of AOL Instant Messenger (Aim) in 1997, though, that the platform really took off.

The key difference was that Aim could now be used by anyone on the $\operatorname{Internet}$, whether they used AOL as an ISP or not .

Aim 4.8 goes way beyond just simple instant messaging though. Along with the familiar buddy icons, direct file transfer and even voice communications, Aim 4.8 now offers an email facility. After storing your buddy's email address for the first time, it's a doddle to click on the mail icon and send them a message - great for if they're not currently online at the time. However, you can only send messages if you have an AOL, Compuserve or Netscape email address.

If you only ever chat to your buddies, then you may be better off with a multiple-protocol client such as Trillian, but if you're after the above advanced features, Aim is the way to go. Aim is available for Windows, Macintosh, along with Palm and Pocket PC PDA platforms, while Aim Express allows you to access your buddies from almost any web browser.

GRAPHICS

Imageforge

www.cursorarts.com

The trouble with Windows' own Paint program is that it falls just a little short on basic functionality. Most users only want a little extra in order to get the most out of their images, which is where utilities such as Imageforge come in.

Imageforge opens and saves in a large number of graphics formats, and offers effects to blur, sharpen, posterise, halftone and engrave. There are also the usual sliders to adjust the hue and saturation, brightness and gamma, along with an auto-contrast tool. It's hardly super-advanced stuff, but enough to make your **digital** camera pictures or scans look punchier.

Either by coincidence or design, the free version of Imageforge is quite difficult to find on the Cursorarts website, and many times you'll find yourself about to download the commercial Imageforge Pro. To find the free version, click on Downloads, then on Free Utilities, then again on the bottom link labelled 'Click here for free Cursorarts Utilities'. Interestingly, the free version of Imageforge felt a little sluggish on our machine, but if it's annoying you, proceed directly to Irfanview, below.

Powerstrip 3.20

 $\verb|www.entechtaiwan.com||$

Today's graphics card drivers offer a wealth of options to change and tweak display settings, but none are a patch on Powerstrip 3.20. Powerstrip offers the best part of 500 controls over your display hardware, including colour correction, advanced timings, precision refresh rates and the creation of unusual custom resolutions. Remarkably this single version happily works with the vast majority of graphics chipsets and cards on the market.

Powerstrip is often the only way owners of unusual displays such as projectors and rear projection TVs can get the ultimate image from their PC. Gamers too can squeeze every ounce of performance from their cards with sliders to adjust graphics chipset and memory clock speeds. There's something for everyone here.

Sure, it can look a little daunting at first glance, but if you're willing to put the effort in, Powerstrip quickly becomes an invaluable and unique tool for optimising displays.

Irfanview

www.irfanview.com

Irfanview is a great utility for opening and saving in a vast range of graphics file formats, along with performing a reasonable amount of manipulation along the way. It's designed for situations where Windows' own Paint program just fails to cut the mustard.

Effects include blur, emboss, oil paint, edge detection, explosion and pixellise, while the enhance colours option allows you to adjust red, green and blue levels, along with brightness and contrast. There are sharpening and resolution adjustments too.

Some of the most obscure formats, such as those native to Sun and SGI (Silicon Graphics) platforms, along with bitmaps for Wap handsets, require additional plug-ins, but these too are free downloads. All in all it's a neat, free download that will satisfy the imaging requirements for most basic situations.

Mosaic Creator

www.aolej.com/mosaic

You know those giant images which actually consist of a montage of tiny photos? With Mosaic Creator, you can now create your own.

It's an eight-step process which can be as easy or complex as you like. You start by choosing your main image, followed by the selection of tiny images which will make up the montage. Next you specify the size and shape of the each cell, along with any further enhancements such as blurring and masking. Then hey presto! There's your photo montage. The trial version has limited file sizes, but is still very usable.

Photoplus 5

www.serif.com

While compact utilities such as Irfanview and Imageforge are designed to take over where Windows Paint left off, Serif's Photoplus is a considerably more sophisticated offering. Version 8, the latest release, is a full commercial product, but Serif's done the right thing and still offers the earlier version 5 as a free download. Simply click on the Community section on the front page and you'll find Photoplus 5 under the Free downloads section.

Along with the usual image enhancements, Photoplus offers more advanced selection tools, editable text and a variety of shapes whose appearance can be adjusted with a number of sliders.

When it comes to exporting your images, Photoplus offers the invaluable facility of a preview with an expected file size - very handy when you're trying to work out how far you can process an image for a web page. Image slicing and maps are also offered for web designers.

Sadly, support for tiff and gif formats are disabled on the free version

Serif claims this is because they employ licensed image compression technology, but this can be re-enabled for the purchase price of just GBP 1. Not bad when you consider how much more sophisticated this is than the average graphics utilities.

MULTIMEDIA

DVD Genie

www.inmatrix.com/genie

DVD movies are officially protected by a regional coding system which means UK titles will only play on UK machines. This is a problem for enthusiasts who often want to import titles from the US, as these are encoded with a different region.

Infuriatingly, regional coding applies on PCs to both DVD-Rom drives and the player itself, whether hardware or software-based. Fortunately the fantastic DVD Genie utility can unlock the vast majority of software DVD players, including PowerDVD, SoftDVD and the one which comes with ATI graphics cards.

Depending on your configuration, you may find the Rom drive still poses a regional problem, but a quick browse on the website for DVD Genie reveals a list of firmware updates that will unlock many popular drives.

Quicktime Player

www.quicktime.com

Today's reality of exclusive content licences means the average PC user has at least two media players in their system, and one of these will almost certainly be Quicktime.

Apple has put an enormous effort into ensuring many of the hottest movie trailers, previews and clips are available only in the Quicktime format, which simply means you'll need the Quicktime Player if you want to see them.

Quicktime is therefore essential for movie lovers, but it's much more than just a plain media player. The Quicktime format allows an impressive level of interactivity, from pop-up menus, Flash animations and Javascripts, to the 3D viewing environments of Quicktime VR.

The movie modes on the vast majority of **digital** cameras also employ Quicktime as their native file format, as do many extras on enhanced audio CDs.

In short it's hard to get away from the Quicktime format, which makes the player one of today's essential downloads.

On the downside, though, some of the highest quality movie trailers are reserved for owners of the paid-for Quicktime Pro only.

DivX Player

www.divx.com

DivX is a video compression technology developed by DivX Networks, based on the highly efficient mpeg4 system. The DivX codec (compressor/decompressor) allows you to create your own DivX files, or view them in a suitable media player, such as DivX Networks' own Player. The DivX codec isn't available separately, but you get it with the Player.

DivX could be used for delivering trailers, but most people are using it to sufficiently compress entire feature films so they can be transported on single CD-Roms or even over the Internet. At high levels of compression, the quality is not as good as DVD, but can get close even when viewed full-screen.

As such, there are many official sources of commercial DivX material and, like most technologies, several unofficial ones too. There's even a DivX Player for a number of Pocket PC PDAs, which, coupled with a 1GB IBM Microdrive, could let you watch a whole movie on the go!

The DivX codec is under constant development, so it's worth downloading updated versions for more efficient or better quality.

TMPG encoder

www.tmpgenc.net

Turning your home movies into DVDs is this year's killer application, and a number of excellent packages are available that look after all the tricky stuff for you. The most intensive part of this process is turning your video clips into the mpeg2 format required by DVD. The trouble is that cheaper packages rarely give you much control over this process, while many of the professional authoring tools won't even do it at all!

TMPG encoder is a standalone utility which can convert standard avivideo files into mpeg2. It boasts a vast array of encoding options, including a number of variable and constant bit rates, up to an incredibly high quality 8Mbits/sec setting. An invaluable tool for those who desire the ultimate control and quality from their home movie projects.

Nok2phone

www.ringtonecity.com

There's a vast range of mobile phone ringtones available, but why not create your own unique tune? We're not suggesting you enter each note one by one into some crazy handset editor. Far more sensible is the Nok2phone utility, which can take PC Midi files and convert them into the appropriate file format for a wide range of mobile phones. Supported handsets include those from Alcatel, Ericsson (Sony Ericsson), Nokia, NEC, Motorola, Panasonic, Philips, Samsung, Sanyo, Sendo, Siemens and Sony.

Since the audio capabilities of many mobiles leaves much to be desired, though, the converted files can sound a little, shall we say, strange, but this is all part of the charm! Nok2phone is shareware and limited to converting the first 20 notes only, but full registration only

costs around GBP 6.

PRIVACY

Cloak

http://insight-concepts.com

If you want to hide information effectively, then look no further than stenography, the process of encrypting data within bitmapped pictures.

Cloak performs this process, using either Blowfish, Mercury or 128bit encryption algorithms, on top of which you can also add a password. Cloak is happy to encrypt any type of file, be it a document, spreadsheet, presentation, or an executable.

If you've never seen stenography in action, you'll feel like you're stepping into an episode of The X-Files. First you select your bitmapped image that's going to store the data. Any will do, but 24bit RGB photos work the best, and to be really discrete, the bmp file should measure at least 2.5 times that of the file that's being cloaked.

Once the picture has been chosen, simply select the file to be cloaked, choose the encryption algorithm, then enter a password. That's it; your file is now securely hidden within the picture, which looks exactly the same as before, and can still be printed or viewed without fear of revealing its true identity.

Open the picture in Cloak again, though, and one password later its contents are revealed. The free download of Cloak only gives you 10 goes before it asks for a payment of GBP 20, but we simply couldn't resist inclusion in this feature. For more information on the fascinating world of encryption and stenography check out last month's powexpert.

Ad Aware 5.83

www.lavasoftusa.com/aaw.html

Every day our PCs are reporting our movements and preferences or serving targeted advertising without us even being aware of it. This is known as Spyware and is understandably one of the Internet's scapegoats. Web programmers may assure us that a well-meaning cookie can enhance the browsing experience, but if you're unhappy about any of this going on in your system, install a copy of Ad Aware.

This neat utility scans your memory, Registry and hard disks for known Spyware and advertising systems, and allows you to remove them safely.

It's a doddle to use, and feels not dissimilar to performing a scheduled virus scan. Like virus scanning, though, regular updates are required to identify the latest enemies.

Sadly, installing Spyware is often the means by which many utilities can be offered free of charge. Subsequently removing the Spyware could prevent the utility from functioning, which puts the user in a Catch 22 position of choosing privacy or free software. At least Ad Aware lets you know what's going on behind your back though, and gives you the power to act.

A-Lock 6.0

www.a-lock.com

Whether it's sensitive business or sensitive gossip, there are plenty of times when we'd prefer more security in our email. The solution is to encrypt the messages and only allow their intended recipient to decrypt them at the other end.

This is where A-Lock comes in. Simply type your message as normal in your email program, then click the A-Lock icon in the task tray in order to encrypt it. If you receive encrypted messages, follow the same process.

A-Lock cleverly displays the decrypted message in a separate window, though, leaving the one in your inbox securely scrambled. There's also a lockable password book.

Kremlin

www.kremlinencrypt.com

Kremlin is an encryption utility that seriously improves the privacy of your files. At its simplest, Kremlin will take a file and encrypt it

using one of six algorithms, including RC4, DES, IDEA or Blowfish, with keys up to $160 \mathrm{bits}$ long. This is so secure, the US Government considers it a munition!

Encrypting is as easy as right-clicking the file in question and selecting Kremlin Encrypt. The resulting encrypted file has an apt.kgb file extension.

Kremlin also offers a secure recycling bin on your desktop, the contents of which are permanently deleted straightaway - just like a digital shredder.

On top of all this, Kremlin can be set to wipe your virtual memory swap file, along with all histories on a regular basis or at shutdown. Web Window Killer

www.anarelion.com/aalku/WebWindowKiller

Pop-ups are the bane of the modern web experience, and unsurprisingly there are plenty of utilities that claim to eliminate them. The only problem is that you must pay for the vast majority, and since this feature is focused on what's available essentially for free, we've had to search a little further.

Web Window Killer is a small unassuming utility that can eliminate annoying pop-ups. The key behind it is a list of so-called hostile entries that Web Window Killer will subsequently look for and close the instant they try to rear their ugly heads. Of course while it already comes with a list of usual suspects, you'll really have to add your own specific ones in order for it to be effective. If you don't want to fork out for a commercial pop-up killer, this is worth the effort, but note that also running Ad Aware (below left) can solve plenty of problems.

SECURITY

Zonealarm

www.zonelabs.com

A firewall protects your PC from external attacks by blocking access from specific sources or services. Firewalls were traditionally boxes that protected entire networks, but with the advent of always-on Internet connections in homes and small offices, the popularity of software firewalls has risen dramatically.

Easily the best-known software firewall is Zonealarm, which is free for personal use. Once activated, Zonealarm waits patiently in the System Tray for an external request to access your machine, at which point it can simply block it, or ask your permission.

It's only after running a firewall for a few minutes that you realise many applications have to access the outside world and vice versa simply to operate, such as email programs, media players or web browsers. Consequently your first half hour or so of using Zonealarm will be spent setting up permissions for trusted applications. This can be a little daunting at first, but the excellent seven-step installer guides you through the essentials.

The simple fact is that anyone who remains connected to the Internet for any length of time should be running a firewall, especially ADSL and cable modem users. Windows XP comes with a firewall, but Zonealarm is far more capable and flexible. Indeed Zonealarm is such a universally admired utility that it was only just pipped from appearing in our must-have top five.

HTML Guard 2.11

www.aw-soft.com

Have you ever found a website that bears an uncanny resemblance to your own? It wouldn't be so bad if your site had been used for inspiration, but the reality is that entire batches of HTML code have been nabbed without your permission.

If this sounds like you, then look no further than HTML Guard. This utility allows you to encrypt HTML sourcecode, along with disabling text selection, right-mouse clicks, and even printing from within a browser. Yes, you can actually stop people from copying swathes of text, and really wind them up by forcing the browser to print blank pages! Sure, there are

still ways for someone to re-use your text, code and images, but running HTML Guard can certainly make life a lot more difficult for anyone wanting to plunder your hard work.

Tiny Personal Firewall 2.0

www.tinysoftware.com

Tiny Software offers a number of products including the highly capable Personal Firewall 3.0. This is a very powerful firewall that's designed for deployment in medium to large enterprises, and carries a hefty price tag. Fortunately for this feature, Tiny Software also offers a free product called Personal Firewall 2.0.

It's a pretty basic firewall that's designed to protect your machine from external network access. Like most firewalls you can set permissions for various services, but the main control is a simple three-position slider, allowing full access, no access, with an ask-me-first position in the middle. Zonealarm is more capable, but if you find its approach overly complex, go for Personal Firewall 2.0 instead.

Devicelock

www.protect-me.com

There's nothing guaranteed to annoy an IT department or cybercafe owner more than someone who wants to install or remove files from their precious PCs. Then again, it can also be pretty infuriating for anyone looking after schools or family systems too.

Devicelock could be the answer, so long as the PC is running Windows NT, 2000 or XP. It allows the administrator of that system to assign **rights** on all drives, and even the serial and parallel ports. You can specify full access, no access, prevent ejecting, or combinations of the above, during specific times of the day and week. It's also possible to selectively change these **rights** depending on who's logged in at the time. Device lock can also be used to flush the buffers of a drive and everything can be operated remotely for the administrator who likes to make their presence felt.

Email remover

http://eremover.bizhosting.com

It's way too easy to email huge files around these days, and there are few things more frustrating than having your email inbox blocked by massive or unsolicited messages. Whether it's spam, a mistaken address, or a careless colleague, there you are, wasting your time online downloading the message just so you can get to your normal mail.

Fortunately Email Remover can come to the rescue by quickly downloading the subject headers and first few lines of your pending messages only. This allows you to check them out and delete where necessary, after which you can use your normal email client to access your desired messages.

A simple but perfect tool for unblocking your email account and preventing you from wasting time downloading messages you didn't even want.

SIC Codes/Descriptions: 7372 (Prepackaged Software)
Naics Codes/Descriptions: 51121 (Software Publishers)

8/9/2 (Item 2 from file: 621)

03069275 ? ?**Supplier Number:** 80710247

LexisNexis and Knight Ridder **Digital** Form Interactive-Content Alliance; Knight Ridder **Digital** Extends Content to LexisNexis Users; LexisNexis Provides Information Solutions to All Knight Ridder Offices.

PR Newswire , p CLTU00511122001

Dec 11, 2001

Language: English? ?Record Type: Fulltext

Document Type: Newswire; Trade

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DAYTON, Ohio and SAN JOSE, Calif. -- LexisNexis, a leading global provider of comprehensive, authoritative legal and business information solutions, and Knight Ridder **Digital**, interactive information subsidiary of Knight Ridder and founder/operator of the Real Cities Network, today announced the formation of an interactive-content alliance. Through the relationship, Knight Ridder **Digital** is syndicating its content available to LexisNexis users; and LexisNexis is powering access to on-point information to 17 Knight Ridder newspapers in 28 markets.

Twenty-eight full-text daily Knight Ridder publications from top media markets throughout the country now will be available to LexisNexis customers, many same-day or and within a day of publication, powered by Knight Ridder **Digital**. The offering includes major metropolitan papers such as The Miami Herald, The Philadelphia Inquirer and Daily News, the Detroit Free Press, The Charlotte Observer, the Pioneer Press in St. Paul-MN, and The San Jose Mercury News. The additional Knight Ridder content joins the thousands of world-class publications available to LexisNexis customers, enabling LexisNexis to be a leader in the news and business information marketplace.

"Our agreement with LexisNexis is another major step in creating new revenue streams from Knight Ridder **Digital** content," said Ken Doctor, vice president, content services for Knight Ridder **Digital**. "LexisNexis is one of the premier information services in the world, and now for the first time Knight Ridder content will be available to its business, legal, academic and government desktop users. Those users will be further introduced to our most important newspaper brands and be able to **link** directly to them. We believe that in addition to customers finding our **content** through our destination sites, our **content** must actively find customers through **other** established channels of sales and distribution. The LexisNexis channel is a key, and we expect the partnership to grow over time "

In a separate agreement, Knight Ridder newspapers and LexisNexis announced a new, centrally-administered information services contract to enable Knight Ridder professionals access to the LexisNexis suite of information solutions. That contract brings wide exposure to LexisNexis(TM) research databases to the desktops of thousands of professionals at Knight Ridder, including nexis.com(SM) for journalists and editors conducting research, lexis.com(R) for Knight Ridder's legal staff, customized solutions for professionals in Knight Ridder's corporate offices, LexisNexis(TM) Political Universe for the Knight Ridder's Washington Bureau, and access to select Online Public Records and LexisNexis(TM) Company Dossier products across the country.

"We are excited to offer LexisNexis customers the high-quality news that Knight Ridder, the second largest newspaper publisher in the nation, produces, while driving our first-rate information solutions to Knight Ridder newsrooms and offices," said Dawn Conway, vice president of content licensing for LexisNexis. "This represents another move in our company's drive to magnify the breadth and depth of our information and provide our customers with the very best resources."

"Knowledge gained in research is a prime tool in creating great journalism," said Jerry Ceppos, vice president of news at Knight Ridder. "Desktop access to deeper and wider research and to public records databases will improve our reporting edge."

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About Knight Ridder, Inc. and Knight Ridder Digital
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Internet and technology companies and two newsprint companies. The
company's Internet operation, Knight Ridder Digital, creates and
maintains a variety of innovative online services, including Real Cities,
the premier national network of city and regional destination sites in 58
U.S. markets. Knight Ridder and Knight Ridder Digital are
located in San Jose, Calif. For more company information, visit
http://www.knightridder.com/ or http://www.knightridderdigital.com/.
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Website: http://www.knightridder.com/
http://www.knightridderdigital.com/ http://www.lexis-nexis.com/
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Publisher Name: PR Newswire Association, Inc. **Company Names:** *Knight Ridder **Digital**

Product Names: *2711000 (Newspapers); 4811520 (Online Services) **Industry Names:** BUS (Business, General); BUSN (Any type of business) **SIC Codes:** 2711 (Newspapers); 4822 (Telegraph & other communications)

NAICS Codes: 51111 (Newspaper Publishers); 514191 (On-Line Information Services)

Ticker Symbols: KRI

8/9/3 (Item 3 from file: 613) 00688642 ? 20011211CLTU005 LexisNexis, Knight Ridder **Digital** Form Alliance

PR Newswire

Tuesday, December 11, 2001? 11:00 EST

Journal Code: PR ?Language: ENGLISH ?Record Type: FULLTEXT ?Document Type: NEWSWIRE

Word Count: 935

Text:

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DAYTON, Ohio and SAN JOSE, Calif., Dec. 11
/PRNewswire/
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The Charlotte Observer (Charlotte.com)
Saint Paul Pioneer Press (Twincities.com)
Contra Costa Times (BayArea.com)
Philadelphia Daily News (Philly.com)
Akron Beacon Journal (Ohio.com)
The State (ColumbiaToday.com)

Kansas City Star* (KansasCity.com) Star-Telegram* (DFW.com) The Lexington Herald-Leader (Kentucky.com) Fort Wayne News Sentinel (FortWayne.com) Columbus Ledger-Enquirer (RealColumbus.com) Duluth News-Tribune (DuluthSuperior.com) Centre Daily Times (RealStateCollege.com) The Tallahassee Democrat (Tallahassee.com) The Wichita Eagle (Kansas.com) The Sun Herald (MississippiCoast.com) The Bradenton Herald (Bradenton.com) Belleville News-Democrat (Belleville.com) The Macon Telegraph (Macon.com) Grand Forks Herald (GrandForks.com) El Nuevo Herald (Miami.com) The San Luis Obispo Tribune (SanLuisObispo.com) The Sun News (MyrtleBeachOnline.com) Wilkes Barre Times Leader (WilkesBarreScranton.com)

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Knight Ridder also has investments in a variety of Internet and technology companies and two newsprint companies. The company's Internet operation, Knight Ridder **Digital**, creates and maintains a variety of innovative online

services, including Real Cities, the premier national network of city and regional destination sites in 58 U.S. markets. Knight Ridder and Knight Ridder

Digital are located in San Jose, Calif. For more company information, visit

www.knightridder.com or www.knightridderdigital.com .

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Web site: http://www.knightridder.com http://www.knightridderdigital.com

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SUN NEWS; ELSEVIER NDU NV; PRX INC

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TECHNOLOGY DEVELOPMENT

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LexisNexis and Knight Ridder Digital Form Interactive-Content Alliance

PR NEWSWIRE

December 11, 2001

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Word Count: 928

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"Our agreement with LexisNexis is another major step in creating new revenue streams from Knight Ridder Digital content," said Ken Doctor, vice president, content services for Knight Ridder Digital. "LexisNexis is one of the premier information services in the world, and now for the first time Knight Ridder content will be available to its business, legal, academic and government desktop users. Those users will be further introduced to our most important newspaper brands and be able to link directly to them. We believe that in addition to customers finding our content through our destination sites, our content must actively find customers through other established channels of sales and distribution. The LexisNexis channel is a key, and we expect the partnership to grow over time."

In a separate agreement, Knight Ridder newspapers and LexisNexis announced a new, centrally-administered information services contract to enable Knight Ridder professionals access to the LexisNexis suite of information solutions. That contract brings wide exposure to LexisNexis(TM) research databases to the desktops of thousands of professionals at Knight Ridder, including nexis.com(SM) for journalists and editors conducting research, lexis.com(R) for Knight Ridder's legal staff, customized solutions for professionals in Knight Ridder's corporate offices, LexisNexis(TM) Political Universe for the Knight Ridder's Washington Bureau, and access to select Online Public Records and LexisNexis(TM) Company Dossier products across the country.

"We are excited to offer LexisNexis customers the high-quality news that Knight Ridder, the second largest newspaper publisher in the nation, produces, while driving our first-rate information solutions to Knight Ridder newsrooms and offices," said Dawn Conway, vice president of content licensing for LexisNexis. "This represents another move in our company's drive to magnify the breadth and depth of our information and provide our customers with the very best resources."

"Knowledge gained in research is a prime tool in creating great journalism," said Jerry Ceppos, vice president of news at Knight Ridder. "Desktop access to deeper and wider research and to public records databases will improve our reporting edge." Knight Ridder Publications To Be On LexisNexis The Philadelphia Inquirer (Philly.com) Detroit Free Press (Freep.com) The Miami Herald (Miami.com) The San Jose Mercury News (BayArea.com) The Charlotte Observer (Charlotte.com) Saint Paul Pioneer Press (Twincities.com) Contra Costa Times (BayArea.com) Philadelphia Daily News (Philly.com) Akron Beacon Journal (Ohio.com) The State (ColumbiaToday.com) Kansas City Star* (KansasCity.com) Star-Telegram* (DFW.com) The Lexington Herald-Leader (Kentucky.com) Fort Wayne News Sentinel (FortWayne.com) Columbus Ledger-Enquirer (RealColumbus.com) Duluth News-Tribune (DuluthSuperior.com) Centre Daily Times (RealStateCollege.com) The Tallahassee Democrat (Tallahassee.com) The Wichita Eagle (Kansas.com) The Sun Herald (MississippiCoast.com) The Bradenton Herald (Bradenton.com) Belleville News-Democrat (Belleville.com) The Macon Telegraph (Macon.com) Grand Forks Herald (GrandForks.com) El Nuevo Herald (Miami.com) The San Luis Obispo Tribune (SanLuisObispo.com) The Sun News (MyrtleBeachOnline.com) Wilkes Barre Times Leader (WilkesBarreScranton.com) * already on LexisNexis About Knight Ridder, Inc. and Knight Ridder Digital

Knight Ridder is the nation's second-largest newspaper publisher, with products in print and online. The company publishes 32 daily newspapers in 28 U.S. markets, with a readership of 8.5 million daily and 12.6 million Sunday. Knight Ridder also has investments in a variety of Internet and technology companies and two newsprint companies. The company's Internet operation, Knight Ridder **Digital**, creates and maintains a variety of innovative online services, including Real Cities, the premier national network of city and regional destination sites in 58 U.S. markets.

Knight Ridder and Knight Ridder **Digital** are located in San Jose, Calif. For more company information, visit www.knightridder.com or www.knightridderdigital.com .

About LexisNexis

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8/9/5 (Item 5 from file: 636)

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NOTEBOOK.

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Samsung Electronics is partnering with Macy's for in- store promotion supporting manufacturer's Yepp digital audio players. Companies said Yepp line would be sold in new "Tech Shop" in Macy's Herald Square flagship store's Cellar section starting this week, marking introduction of digital convergence products to store. In fact, addition of Yepp line marks return of CE products to Macy's, which had CE section in its stores before exiting business in late 1990s to concentrate on more profitable items. Samsung digital audio kiosk is being installed

in Tech Shop, companies said. As part of promotion, companies will be giving away merchandise, offering product demonstrations, conducting contest offering chance to win 20" Samsung TV/DVD combo. Companies also will host in-store performance by R&B group City High Nov. 12. Yepp players and City High events are being promoted on Macy's Jumbotron outside store, and on radio. Meanwhile, Samsung announced YP-30S Yepp joined its widening line of digital audio players. New wearable device at \$169.99 features download speed of 7 Mbps, which Samsung said made it "fastest unit on the market." Device comes bundled with Rio Port Digital Music software and 64 MB of embedded memory, which Samsung said allowed it to download up to 64 min. of high-quality (128 kbps) music in less than 10 sec. Unit can be worn around arm or neck via included straps or attached to clothing with included belt clip. YP-30S also is smallest digital audio player from company to date, measuring 1.7" (W) \times 2.5" (H) \times .67" (D). Retailers carrying device include Best Buy, CompUSA, Musicland. -----

Gemini Industries signed agreement to license Scottsdale Technologies' Digital-IR technology that allows remote control to be upgraded with product codes downloaded from Internet. Gemini will ship Philips brand 6-function remote with technology in Feb. at \$69 and is likely to expand it to 4- and 8-function devices as well, Business Development Vp Robert Heiblim said. Remote is updated by pointing it at PC screen displaying promoteremote.com Web site. Codes then are uploaded from screen via IR light signals and stored in remote. Rather than ROM chip typical in standard remote with preloaded product codes, Digital-IR- based remote has EPROM to accommodate those downloaded from Web site. In focus group tests, first-time users were able to complete process in 10 min., Heiblim said. Gemini will maintain Web site and update database and has rights under agreement to license technology to 3rd parties, he said. Philips will manufacture remote in Spain and market it in Europe, while Gemini handles sales in U.S. Scottsdale, founded in 1996, originally was purveyor of Light Link IR technology that it included in Program Master remote device that controlled TV, VCR and cable box and could be updated via software. It also marketed Electronic TV Host service that promised to deliver weekly TV listings to PC via modem. -----Wal-Mart exclusively licensed Polaroid brand for 35 mm photographic

Wal-Mart exclusively licensed Polaroid brand for 35 mm photographic film. Wal-Mart signed pact with Agfa, which controls some **rights** to Polaroid name. While Wal-Mart previously sold Polaroid film, it now has exclusive right to sell brand. Polaroid filed for bankruptcy protection in Oct. -----

Macrovision acquired patents and other intellectual property of AudioSoft International and MediaDNA. It described AudioSoft as developer of digital copyright licensing, tracking and management technologies for the music industry. It said MediaDNA produces digital rights management tools. Macrovision said AudioSoft Tracking Master product captured, organized and delivered worldwide information on usage of music on Internet. As part of transaction, Macrovision also acquired U.S. patent No. 6,202,056, which describes method for operating computer network to allow for accounting of usage rights for audio, video and other works in digital formats and for determining usage fees such as copyright royalties. Macrovision said MediaDNA's "cell" patents and technology, previously marketed as eMediator, bind usage rules and rights to individual pieces of digital content. Digital content remains protected no matter how many times it is distributed and used. MediaDNA's U.S. patent No. 5,845,281 describes method for securely managing and controlling use of data object, such as audio or video content or a software application. Macrovision said it intended to license AudioSoft technology to on-line music services so they could offer publishers and artists information on popularity of their music and

accounting of royalties. Company said it also would license MediaDNA patents, which date from 1997 and cover fundamental areas used by **other DRM** companies and **content** delivery services. -----

Bestway Rentals received waiver from lender after violating requirement of \$10 million credit agreement governing interest coverage ratio, it said in SEC filing. Rental chain, which operates 83 stores, received series waivers earlier this year before credit agreement was formally amended Oct. 26 and extended to Feb. 28. Bestway sold stores in Lafayette, Tenn., and Hickory, N.C., this fall to Value Rentals and Rent-a-Center for \$216,841 and \$113,541, respectively. At same time, it purchased outlets in Tenn. from Instant Rentals (\$148,000) and Ala. from Zajac's Electronics Service Center (\$296,000). Bestway said net income for year ended July 31 fell to \$97,488 from \$397,413 year earlier as revenue rose to \$35.9 million from \$34.9 million. CE accounted for 32% of revenue, followed by home furniture (27%), appliances (16%). ------

CompUSA began promoting new online "game fixx" Web site last week and Sam Goody started promoting its venture into videogame business. One of Goody's first steps has been e- mailing customers of its online music/video business to inform them of retail chain's full selection of product across all platforms. Videogame segment isn't new for Best Buy, which acquired Goody stores when it bought Musicland earlier this year. -----

MicrosoftSF technology showcase/retail store in San Francisco's Metreon center closed last week. Landlord is Sony and closing comes 2 weeks before rollout of Microsoft's Xbox videogame system. One of Microsoft's main competitors on game console front, of course, is Sony Computer Entertainment's PlayStation 2. But closing of store coming so close to rollout of game system is just coincidence, Microsoft said. MicrosoftSF store opened in Metreon entertainment and shopping complex with much fanfare June 16, 1999. Microsoft spokeswoman told us last week: "We were open to a retail partnership with Sony in a new space they were developing in (San Francisco). We viewed this as an opportunity to explore this unique setup for us to sell directly to consumers. While we've been happy with the response to the store, we've decided we'd rather focus on our core business of developing... software and selling it via our current sales and distributions channels. The decision to close the store was mutual and our relationship with Sony remains very strong. In fact, we continue to collaborate with Sony on other projects, most notably, the recently announced PC for Life program." -----

MusicMatch reported record unit sales of its Jukebox personalized music software for Oct. San Diego company said software sales in month had "grown more than 60% since the same month last year." Company said its "installed base and the number of MusicMatch Jukebox active users has more than tripled," saying "more than 24 million music fans are registered users of MusicMatch Jukebox... compared to 8 million just one year ago." Spokeswoman told us: "We don't share income/loss figures publically, but revenue growth was 63% over last year." Privately held company was started in 1997 with Thomson Multimedia, Redpoint Ventures and Intel Capital as principal investors. -----

SanDisk obtained permanent injunction against Viking Components, Rancho Santa Margarita, Cal., preventing latter from selling CompactFlash cards in U.S. it manufactures that incorporate Lexar Media's 1140, 1145, 1175 and 1250 controllers. Viking also paid SanDisk "nominal" undisclosed amount to settle patent infringement complaint that SanDisk filed in U.S. Dist. Court, San Francisco, earlier this year. Commenting on settlement, Viking co-CEO Glenn McCusker said: "While this has been a nuisance and a distraction, it has had no effect on our ability to support our customers' business." -----

Sears opened 2nd store that melds CE and appliances in freestanding location in Bolingbrook, Ill., and will add 3rd in Mount Prospect, Ill., by early Nov., Home Electronics Vp- Gen. Mgr. Ray Brown said. Sears opened first test store in Ind. earlier this year and thus far has posted sales

incremental to existing department store locations, Brown said. "If you look at the trading area and the stores that used to service it incrementally we are growing that business," he said. Brown declined to release sales figures. While first 3 stores have same format, "I can't say we won't looking at tweaking it next year and 2002, to a certain degree, will vary (in format) at least slightly." -----

Lycos global Web network said Xbox was 29th most popular online search by its users in week ended Oct. 27. Xbox beat out PlayStation 2 (#39) for first time and was considerably ahead of GameCube, which Lycos said missed top 50. -----

Lawsuit over copy-protected CD has been filed against BMG Entertainment in Germany, source there told us. Details were scant at our deadline, but suit concerns CD compilation Just the Best 04/2001 that's said to be copy protected but not labeled as such. Suit is said to charge BMG with fraud, computer fraud and copyright misuse. Computer fraud claim is based on violation of CD Red Book standard under German law, which prohibits damage to "the property of someone by affecting the result of a data processing proceeding, by incorrect design of a program or use of false and incomplete data." -----

Hewlett-Packard started shipping HP Digital Entertainment Center at \$999. Internet-ready digital music component allows user to buy music online, download songs, create custom CDs from user's living room. Component can be connected to Web using either broadband or dial-up access with customer's existing Internet service provider (ISP). Via Web services offered by component, user can sample and acquire new music and tune into Internet radio stations worldwide searching by call letters, city, country, language, station name. User also can search for video content online such as movie trailers. Access also is provided to database of songs, video clips and other information, with content provided by Muze. Additional services and functions will be made available via downloads from Web, company said, noting it already had signed digital entertainment service agreement with RealNetworks. Company said it "also plans to continue developing relationships with digital entertainment service providers to broaden the capabilities" of component. Retailers carrying Entertainment Center include Best Buy stores nationwide and select Circuit City locations. -----

Concerns about PVR copying among entertainment content owners is being address by Macrovision. Copy protection powerhouse is developing "flexible yet secure" digital rights management system for PVRs, PCs and set-tops boxes, Pres.-CEO William Krepick told us last week. System is scheduled to arrive next year, he said. -----

R.C. Willey opened 130,000-sq.-ft. store in Henderson, Nev., marking entry into Las Vegas market. Salt Lake City- based chain, which plans up to 3 stores in Las Vegas area, is likely to open 2nd outlet in Summerlin, Nev., in 2003, Vp Steve Child said. -----

Compaq expanded its portable audio player line with iPAQ Personal Mini-CD Player at \$99.99. It said device offered 480-sec. shock protection and supported mini-CD-Rs and mini- CD-RWs. It comes with 555 MB of built-in storage. Company also started shipping previously announced iPAQ Personal CD Player PCD-1 at \$169.99. -----

Supreme Court last week rejected Indianapolis appeal of lower court ruling on city's law against violent videogames adopted in July 2000. Seventh U.S. Appeals Court, Chicago, ruled on case — Kendrick v. American Amusement Machine Assn. — in March 2001, saying Indianapolis law requiring parent's consent for child to play violent videogames in arcades or other commercial locations violated First Amendment. Judge Richard Posner in decision held that studies so far hadn't provided "evidence that violent videogames are any more harmful to the consumer or to the public safety than violent movies or other violent, but passive, entertainments." He said "violent videogames played in public spaces are a tiny fraction of the media violence to which modern American children are exposed" — and

violence in movies and on TV seemed to be even more graphic, especially in light of games' "cartoon characters" that "no one would mistake" for images of real people. Indianapolis later appealed to Supreme Court, asking it to decide on govt.'s power to limit children's access to violent videogames. Supreme Court turned down appeal with no comment. Under original law, Indianapolis could have fined arcade owners \$200 per day for each violation. -----

Amazon.com revealed in SEC filing that as of Sept. 30, "1,320 employees had been terminated and actual termination benefits paid were \$11 million." E-tailer said job cuts were made as part of restructuring to reduce operating costs, streamline structure and consolidate certain fulfillment and customer service operations. Cuts made were throughout company in clerical, fulfillment, professional and technical departments. Company said it also saved money via "migration of a large portion of its technology infrastructure to a Linux-based operating platform." Technology costs were significantly reduced in 3rd quarter as result of that migration, Amazon said: "We expect to continue to invest in technology and improvements in our Web sites during the remainder of 2001 and 2002, which may include, but is not limited to, offering additional product categories to our customers and implementing additional strategic alliances, as well as potentially continuing our international expansion." Company also described impact terrorist attacks had on its business in filing: "Immediately following the events of September 11, 2001, customer purchases significantly declined but have recovered. We estimate that the net sales impact as a result of the events... was between \$25 million and \$35 million." Meanwhile, company, as expected, opened Magazine Subscriptions store at its Web site. Separately, lawsuit company filed to prevent former international CFO Christopher Zyda from taking job at eBay was thrown out of U.S. Dist. Court, Seattle, because Judge Barbara Rothstein ruled federal courts had no jurisdiction in matter. Amazon expressed disappointment with ruling, saying Zyda's noncompetition and confidentiality agreements with Amazon should prevent him from taking job at competitor eBay. Spokeswoman told us Amazon will likely pursue case but declined to say what court it would be in, adding "the merits of the case have yet to be argued." -----

Target store opened at Amazon.com's Web site last week featuring link to Target.com. Electronics section includes audio, cameras, media storage, phones and TV/video categories. Items being offered at Amazon's Target store not being sold at Amazon's own electronics store included Canon Elph LT APS camera and Philips progressive scan DVD player. But overall number of CE items available at Amazon's Target store was significantly less than Amazon.com electronics store offers. Separately, Amazon Credit Account, virtual "cardless credit card" was unveiled. Online equivalent of department store credit card allows e-tailer's customers to buy product now and pay later. As introductory promotional offer, Amazon said customers who sign up for Credit Account now will get 3 months of no payments and interest-free holiday shopping on orders over \$200 placed through Jan. 31. Service is being provided by Amazon.com Financial Services and Citibank Cards division Citi Commerce Solutions. -----

Advertised \$999.99 price for new Panasonic DVD-RAM deck is decision by retailers and doesn't reflect change by vendor, Panasonic executive told us. DMR-E20 recorder made debut at Best Buy and elsewhere Oct. 20 at \$999.99 -- \$500 lower than Panasonic's MSRP. "The original MSRP was \$1499 and it still is," said Rudy Vitti, mgr., **digital** recorder category: "Retailers decide the price. Obviously they have to make some money on them, and there's the possibility they can sell for \$999. But there's been no suggested price drop from Panasonic." -----

Tremor Entertainment shareholders approved merger plan making Burbank Xbox videogame developer subsidiary of New Systems. If deal is finalized, Tremor will become public company and New Systems will change its name to Tremor Entertainment. Tremor is under contract with Microsoft to create original action fantasy game under Microsoft label for Xbox. Title is scheduled to ship next fall. Tremor CEO Steven Oshinsky said:

"With the approval of the Tremor shareholders now in place, we have entered the final regulatory process to complete the merger which we expect will occur in the next 30 days. Tremor is now tracking its 2nd year of more than 100% growth in revenue with 2002 estimated at (\$2.9 million), up from (\$1.3 million) in 2001, and \$502,205 in 2000. Becoming a public company is now essential to our growth, as game development become more capital intensive in terms of time and personnel required." -----

Ubi Soft Entertainment expressed confidence last week about 2nd half of its fiscal year, saying that despite "uncertain economic climate... the videogame industry remains dynamic due to the fast growth of the new machine installed base." Paris-based game maker said it planned to ship "over 100 new games between now and March 22, 61 of them in the 3rd quarter" (Oct.-Dec.) across all platforms and genres. Company said: the end of the current fiscal year, the group will have added another 160 titles to its catalog, 30 of them PlayStation 2 (PS2), 5 for GameCube (with 2 titles at the console's launch in the U.S.A., Disney's Tarzan Untamed and Batman: Vengeance), 3 for Xbox and 30 for Game Boy Advance" (GBA). Company made comments as it announced 2nd quarter consolidated sales increased 24% to 53.1 million euros (\$47.8 million) from 42.9 million euros (\$38.6 million) in same quarter year ago, while first-half sales improved 72% to 113.4 million euros (\$102.2 million) from 65.9 million euros (\$59.4 million). Game maker said it published 46 new titles in first half of its year -- 6 more than same period year ago. Ubi Soft added: "The good performance in the first half of the year, which normally does not exceed 30% of Ubi Soft's business for the year, combined with the quality of the future portfolio of games, allows the group to confirm its targets for the 2001/2002 fiscal year: 35-40% increase in sales (and) net margin of between 4 and 5%." -----

Rent-a-Center (RAC) agreed to pay \$12.2 million to 4,600 female employees as part of proposed settlement of sex discrimination suit filed year ago. Margaret Bunch had filed suit in Dec. 2000 in U.S. Dist. Court, Kansas City, alleging sex discrimination began shortly after Renter's Choice purchased RAC from Thorn Americas in 1998. RC later changed name to RAC. Settlement covers female workers employed between April 19, 1998, and Oct. 1. Second suit on similar grounds, filed by Claudine Wilfold in Aug. 2000, still is pending in U.S. Dist. Court, St. Louis. Wilfold and 18 other plaintiffs are seeking \$410 million in damages. RAC Pres. Mitchell Fadel said proposed settlement was in "best interests" of company "given the costs and uncertainty of litigation." Gene Graham, attorney for Bunch and others, termed agreement "a fair and favorable resolution of claims that have been vigorously contested." In addition to monetary settlement, RAC must: (1) Adopt policy against gender discrimination and provide employee training on subject. (2) Eliminate weight lifting requirements. (3) Modify internal procedures for reporting gender discrimination. (4) Add "more comprehensive" record-keeping for employment applications and promotions. -----

Microsoft selected Activision as distribution partner for Xbox videogame system in Germany. Santa Monica, Cal., game maker Activision will distribute Xbox hardware and software to German independent retail channels -- excluding toy channel -- via its established NBG EDV Handles & Verlags subsidiary. Activision said deal "further strengthens" its distribution and marketing operations in Germany where it provides games from Activision and other leading independent software publishers. Xbox Gen. Mgr. J Allard said company had "invested considerable time and resources into potential distribution partnerships" and believed Activision deal would "result in greater overall efficiencies for Microsoft." Latter said NBG was named Xbox partner "after a thorough selection process led by" Microsoft Home & Retail Div. Dir. Risto Rautakorpi and "was chosen based on meeting a number of criteria including skills, experience, efficiencies in customer management, leading edge approach, account management, logistical execution, system's flexibility, adequacy of storage facilities and financial strength." Xbox is scheduled to ship in Europe

March 14 at 479 euros (\$434), following Nov. 15 N. America rollout at \$299.

New joint venture Xsido was formed by Sega, Japanese Web investor Softbank and Taiwan PC manufacturer Acer to distribute games via high-speed Internet networks, Tokyo report said last week. New company will offer Sega Dreamcast games and **other** entertainment **content** by companies including Namco and Avex to Internet service providers (ISPs), along with device that makes software available to users regardless of specifications of their PC or videogame console. ISPs then will sell games and entertainment content to consumers. Business has been capitalized at 534 million yen (\$4.4 million) and is targeting ISPs in Japan, S. Korea, Taiwan. Investors SK Global and Winstron each holds 14.6% stake in company. Latter is Acer subsidiary that will be making software device. Sega also has 14.6% stake in company, while Softbank invested 30%. ------

Nam Tai Electronics, blaming worldwide economic slowdown, said 3rd quarter net income slid 12% to \$3.7 million from \$4.2 million year earlier, despite 4% rise in sales to \$59.6 million from \$57.2 million. Nam Tai, which took \$5.5 million charge in 2nd quarter for write-off of assets and provisions for slow-moving raw materials, ended quarter with \$40.1 million cash. It also has invested \$15 million in designing and building new STN LCD production line in China that will mainly produce panels for mobile phones marketed under own and Vtech brands, company said. -----

Olympus D-40 Zoom and E-20 N were among new ${\tt digital}$ still cameras (DSCs) spotlighted at PhotoPlus Expo at Javits Center in N.Y.C. last week. More than 200 exhibitors attended show to spotlight new imaging technology and photo products for professional and advanced amateur photographers. Olympus DSCs were already announced last month but were being shown to public for first time at show, spokesman told us, noting 5-megapixel E-20N at \$1,999 replaces E-10 as company's flagship DSC. Latter model shipped in Aug. 2000 at same price as new model before being reduced to \$1,599, he said. New DSCs were also shown by Canon, Kodak, Nikon. Canon introduced high-end 4-megapixel digital SLR EOS-10, while Kodak showed DCS 720x digital SLR with shutter response speed said to "rival that of conventional film cameras." Nikon spotlighted new D1 digital SLRs D1X and D1H and announced start of NikonPro online service for professional photographers. Despite Olympus emphasis on cameras, among most prominently-displayed item at company's booth was once again line of 4 Eye-Trek multimedia display units ranging in price from \$599-\$1,199. Line includes FMD-20P at \$599, which was designed exclusively to be used in conjunction with Sony's PlayStation 2 game console. It was also demonstrated at Electronic Entertainment Expo (E3) in May. Company has yet to find wide consumer audience to buy Eye-Trek devices, Olympus spokesman told us, noting company has yet to market them on mainstream level. -----

Concord Camera ended 7-year legal battle with former CEO Jack Benun, having received \$1.13 million arbitration award plus \$45,175 interest. Concord had sought \$1.5 million in filing arbitration claim in 1994 that alleged Benun had embezzled corporate funds. Benun was paid \$202,740 for loan to Concord plus interest. In Aug., N.J. Superior Court judge granted Concord's motion for summary judgment and dismissed suit in which Benun sought \$4 million for stock options and guarantee fees. He had filed suit in April that also sought to reduce \$1.1 million arbitration award. Meanwhile, Concord, hampered by bankruptcy of major customer Polaroid, reported first quarter loss of \$868,175, reversing year- earlier profit of \$6.2 million, as sales plunged to \$35.2 million from \$62.7 million. In connection with Polaroid's bankruptcy filing, Concord recorded \$1.6 million and \$1.7 million provisions for accounts receivable and inventory, respectively. Polaroid had sourced single-use and digital cameras from Concord. Concord also incurred \$302,000 in payments in earlier restructuring plan in which it closed single-use camera labeling factory in China and cut 2,000 jobs from overall manufacturing operations there. It also trimmed 71 jobs outside China. Concord had taken \$1.4

million charge against 4th quarter earnings to cover most of restructuring.

XM Satellite Radio had more than 500 subscriber activations as of Sept. 30, 5 days after commercial service was introduced in Dallas-Ft. Worth and San Diego, company said in reporting 3rd quarter financial results. It said it since had seen "ramp-up" of subscriber activations as new markets were added and additional retail outlets began carrying XM receivers, but it didn't specify figure. Terrorist attacks delayed Sept. 12 rollout activities in Dallas and San Diego and "slowed the delivery of XM radios into the distribution chain," but problems there have been resolved, company said. Completion of national rollout is on schedule for mid-Nov., when XM receivers will be available in 6,000 storefronts, company said. XM consolidated losses narrowed to \$70.8 million (-\$1.14 per share) in quarter vs. year-earlier \$160.1-million loss (-\$3.26).

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8/9/6 (Item 6 from file: 20)

19235476

SONICblue Introduces New Diamond Supra V.92 56K Analog Modems; New Diamond SupraMax PCI & SupraSST PCI V.92 Modems Offer Industry Leading Value Proposition

BUSINESS WIRE October 10, 2001

Journal Code: WBWE? Language: English? Record Type: FULLTEXT

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SANTA CLARA, Calif.—(BUSINESS WIRE)—Oct. 10, 2001—SONICblue(TM) Incorporated (Nasdaq:SBLU), unleashed superior dial—up modem performance today with the launch of its new Diamond SupraMax(TM) V.92 PCI and Diamond SupraSST V.92 PCI modems. Incorporating the new ITU V.92 and V.44 technologies, SONICblue, an industry leader, is the first manufacturer to completely transition its entire Diamond Supra modem product line to the new industry standards and provide a vastly improved Internet dial—up modem experience for consumers.

"The Diamond Supra V.92 modems offer an industry leading value

proposition, providing compelling new features and performance at the same price," said Duane Dickhut, vice president, Access product line, SONICblue. "We believe the new V.92 modems are an excellent upgrade to existing PC's, enabling consumers to greatly improve the performance, reliability, and quality of their Internet connections."

New V.92 Features

In addition to faster Internet speeds through use of V.92-based dial-up connections, the new SupraMax and SupraSST V.92 modems add four important new features: Quick Connect, Modem-on-hold, PCM Upstream and V.44 data compression.

-- Quick Connect reduces the amount of time it takes for the modem and server to link, cutting connect time by up to 66%

and putting users online almost instantly.

- -- Modem-on-hold enables a standby mode that allows users to take an incoming voice call, or even place a call, without losing their Internet connection.
- -- PCM Upstream increases maximum upload speeds to 48Kbps and allows users to more quickly transfer large e-mail messages, documents, spreadsheets, presentations or photos.
- -- V.44 Compression delivers compression technology that increases the throughput of HTML, text and **other** common Internet **data** types by 30 to 40%. The SupraMax modems are supported by all major operating environments including Windows 95, 98, 98SE, Me, 2000, XP and NT 4.0. Pricing and Availability

The Diamond SupraMax V.92 PCI modem will be available shortly in North American retail outlets including Best Buy, Circuit City, and Fry's Electronics at \$39.95 MSRP. The Diamond SupraMax V.92 PCI and Diamond

SupraSST V.92 PCI modems will also be available shortly in North American distribution channels and system integrators. In addition, the Diamond SupraMax V.92 USB modem is currently available in North American retail outlets at \$49.95 MSRP. For more information on Diamond Supra V.92 modems, visit SONICblue's home page (www.SONICblue.com).

About SONICblue Incorporated (www.SONICblue.com)

SONICblue is a leader in the converging Internet, **digital** media, entertainment and consumer electronics markets. Working with partners that include some of the biggest brands in consumer electronics, SONICblue creates and markets products that let consumers enjoy all the benefits of a **digital** home and connected lifestyle. SONICblue holds significant financial assets, global marketing capabilities and a focused technology portfolio that includes Rio(R) **digital** audio players; ProGear(TM) Information Appliances; ReplayTV(R) personal television technology and software solutions; Go-Video(R) Dual-Deck(TM) VCRs and integrated DVD+VCRs and California Audio Labs high-end home entertainment theater components.

Except for the historical information contained herein, the matters set forth in this press release, including statements as to the expected date of availability of the SupraMax PCI and SupraSST PCI modems, are forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are subject to risk and uncertainties that may cause actual results to differ materially, including, but not limited to, the ability of the Company, its suppliers, retailers and distributors to meet the scheduled product release date, the impact of competitive products and pricing and of alternative technological advances, uncertainties arising from the events that occurred in the United States on September 11, 2001 and other risks detailed from time to time in the SEC reports of SONICblue Incorporated, including its quarterly report on Form 10-Q for the quarter ended June 30, 2001. These forward-looking statements speak only as of the date hereof. SONICblue disclaims any intention or obligation to

update or revise any forward-looking statements.

SONICblue, Diamond, HomeFree and SupraMax are trademarks of SONICblue Incorporated. Rio is a registered trademark of RioPort.com, Inc. and is used by SONICblue under license from RioPort.com, Inc. Other marks referenced herein are the property of their respective

owners.

To take full advantage of the new V.92 standard, users must be connected to an Internet Service Provider (ISP) with V.92 modem technology.

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Company Names: International Telecommunications Union

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Country Names/Codes: United States of America (US)

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Province/State: California

8/9/7 (Item 7 from file: 20)

18894524

SONICblue Licenses ReplayTV Software and Hardware to Support Rollout of Dotcast Digital Network

BUSINESS WIRE

September 19, 2001

Journal Code: WBWE? Language: English? Record Type: FULLTEXT

Word Count: 953

SANTA CLARA, Calif. -- (BUSINESS WIRE) -- Sept. 19, 2001--ReplayTV Technology to be Integrated With Dotcast's New Content

Distribution Network

In an agreement established to provide Dotcast-enabled consumer devices with digital video capture and playback functionality, SONICblue (TM) (Nasdaq:SBLU) today announced that it has agreed to license its ReplayTV(R) digital video recording technologies to Dotcast, Inc. The agreement allows for the use of ReplayTV DVR technologies in the Dotcast Digital Network (TM), a new wireless broadband network capable of distributing massive amounts of digital content nationwide.

SONICblue and Dotcast have agreed to integrate the ReplayTV software platform and hardware reference designs on a non-exclusive basis with a DotBox receiver -- a digital network device that will manage the storage of video, music, and other rich media delivered to consumers over the Dotcast Digital Network. Through agreements with approximately 200 broadcasters, Dotcast will be able to cost-effectively distribute DVD-quality feature-length movies, CD-quality music albums, video games, e-books, software applications, television programming and Internet content directly to the consumer.

"We firmly believe that this new method of content delivery is coming soon to the home, and that our technology and strong intellectual property position will be essential elements in these emerging consumer content delivery services," said Ken Potashner, CEO and chairman, SONICblue. "Our work with Dotcast, as well as other licensees, underscores our belief that SONICblue's licensing strategy will enhance the success of our own ReplayTV hardware offerings and accelerate mass consumer adoption of personal television."

"SONICblue's ReplayTV software and hardware reference designs are ideal complements to our technologies," said David E. Atkinson, founder, chairman and CEO of Dotcast Inc. "They enable Dotcast to extend its network to an expanding market of **digital** entertainment users. Working with SONICblue is one of the key elements of our strategy to Dotcast-enable a wide range of consumer and business devices that will revolutionize the delivery of **digital** content to homes and businesses."

SONICblue recently announced the first home-networked DVR, the ReplayTV 4000, which will begin shipping in November. ReplayTV software technologies can be found on Motorola **digital** cable set-top boxes, expected to initially roll out to cable operators in Q4. ReplayTV software technologies and service solutions can also be found on Panasonic's ShowStopper hard disk recorders, which are sold in consumer electronics retailers nationwide. ReplayTV technologies are available for license to manufacturers of set-top boxes, DVRs, home-media servers and networked-entertainment appliances.

About SONICblue Incorporated (www.SONICblue.com)

SONICblue is a leader in the converging Internet, **digital** media, entertainment and consumer electronics markets. Working with partners that include some of the biggest brands in consumer electronics, SONICblue creates and markets products that let consumers enjoy all the benefits of a **digital** home and connected lifestyle. SONICblue holds significant financial assets, global marketing capabilities and a focused technology portfolio that includes Rio(R) **digital** audio players; ProGear(TM) Information Appliances; ReplayTV(R) personal television technology and software solutions; Go-Video(R) Dual-Deck(TM) VCRs and integrated DVD+VCRs and California Audio Labs high-end home entertainment theater components.

About Dotcast Inc.

Dotcast is a privately held company based in Mountain View, Calif. that provides high-speed delivery and management services that bring entertainment and business information directly to millions of people over a first-of-a-kind network. Dotcast's proprietary technology supports delivery of data and video services through the world's existing broadcast television infrastructures, including NTSC and DTV in North America, and PAL and DVB in other countries. The Dotcast **Digital** Network enables rich media service providers to manage the delivery of a range of content services in a timely, flexible and cost-effective manner. These rich media services can be delivered simultaneously to a nation of users or they can be selectively sent to markets of targeted customers. For more information on Dotcast, please visit http://www.dotcast.com.

Except for the historical information contained herein, the matters set forth in this press release, including statements as to the expected features, benefits and availability of the new DotBox digital receiver and Dotcast Digital Network integrated with ReplayTV DVR technologies, expectations regarding the digital entertainment content delivery market and SONICblue's position in that market, the expected benefits of SONICblue's licensing strategy, and the expected release date of the Motorola digital set—top boxes, are forward—looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. These forward—looking statements that are subject to risk and uncertainties that may cause actual results to differ materially, including, but not limited to, the ability of the companies to develop the integrated receiver and integrate the ReplayTV DVR technologies with the Dotcast Digital
Network, the ability of SONICblue and Motorola to develop the integrated

digital cable set-top boxes and to meet the scheduled product release date, the impact of competitive products and pricing and of alternative technological advances and other risks detailed from time to time in the SEC reports of SONICblue Incorporated, including its quarterly report on Form 10-Q for the quarter ended June 30, 2001. These forward-looking statements speak only as of the date hereof. SONICblue, ReplayTV and Dotcast disclaim any intention or obligation to update or revise any forward-looking statements.

Note to Editors: SONICblue is a trademark of SONICblue Incorporated. ReplayTV is a registered trademark of SONICblue Inc Incorporated. Rio is a registered trademark of RioPort, Inc. and is used by SONICblue under licenses from RioPort Inc. Dotcast, Inc., DotBox, and the Dotcast Digital Network are trademarks or registered trademarks of Dotcast, Inc. in the United States and other countries. All other products and brand names as they appear in this release are trademarks or registered trademarks of their respective holders. All specifications may be changed without notice.

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SIC Codes/Descriptions: 7372 (Prepackaged Software) Naics Codes/Descriptions: 51121 (Software Publishers)

8/9/8 (Item 8 from file: 20)

16198975

SONICblue's Access Division Releases the Latest 56K Analog Modem

BUSINESS WIRE

April 17, 2001

Journal Code: WBWE? Language: English? Record Type: FULLTEXT

Word Count: 846

SANTA CLARA, Calif.--(BUSINESS WIRE)--April 17, 2001--New SupraMax USB Modem with New V.92 and V.44 (ITU) Support

Significantly Accelerates the Dial-Up Networking Experience
Access, a division of SONICblue(TM) Incorporated (Nasdaq:SBLU),
unleashed superior dial-up modem speeds today with the launch of its new
Diamond SupraMax(TM) USB modem. Through support for the new ITU V.92 and
V.44 technologies, the SupraMax USB combines the industry's highest
Internet speeds with advanced features and functionality to provide the
best dial-up modem solution available today.

"With the ever-increasing levels of data-rich content proliferating the Internet, dial-up web users are finding it harder and harder to stay connected within the constraints of today's 56K dial-up environment," said Duane Dickhut, Vice President and General Manager of SONICblue's Access Division. "We believe that dial up access, on a global basis, continues to be the way a significant majority of today's connected households go online. While we are focused on a wide variety of Internet access and home networking technologies, we continue to innovate dial-up connections and have designed our new SupraMax USB modem to deliver the latest analog modem technology."

In addition to faster Internet speeds through use of V.92-based dial-up connections(1), the new SupraMax USB modem adds four important new features: Quick Connect, Modem-on-hold, PCM Upstream and V.44 data compression.

-- Quick Connect reduces the amount of time it takes for the modem and server to link, cutting connect time by up to 66%

and putting users online almost instantly.

- -- Modem-on-hold enables a standby mode that allows users to take an incoming voice call, or even place a call, without losing their Internet connection.
- -- PCM Upstream increases maximum upload speeds to 48Kbps and allows users to choose the fastest downstream speed for faster and smoother two-way transfer of large e-mail messages, documents, spreadsheets, presentations or photos.
- -- V.44 Compression delivers compression technology that increases the throughput of HTML, text and **other** common Internet **data** types by 30 to 40%.

The SupraMax USB dramatically simplifies modem installation, using a simple one step USB connection process that eliminates the PCI card installation procedure. The SupraMax USB is supported by all major operating environments including Windows 98, 98SE, Me, 2000 and upcoming releases.

Pricing and Availability

The Diamond SupraMax USB Modem will be available through national retailers on April 26, 2001 at suggested retail price of US\$69.99. Additional information about the SupraMax USB modem is available at www.supra.com.

About Access

Access, a division of SONICblue, is driving the home networking market by providing products and solutions for todays connected consumer. The rapid evolution of networking technology and ever expanding Internet content presents significant business opportunities to create a new level of consolidated and simplified complete home data access and control solutions. Access has emerged as a world leader capable of developing technologically advanced and easy-to-install products for this important environment. Access intends to continue to experience market success by leveraging its strong reputation for product quality and a commitment to customer support. The Access division sells its product through a network of domestic distributors, and directly to major retailers/ mass merchants and OEM customers.

About SONICblue Incorporated (www.SONICblue.com)

SONICblue is a leader in the converging Internet, **digital** media and consumer device markets. Working with partners that include some of the biggest brands in consumer electronics, SONICblue creates and markets products that let consumers enjoy all the benefits of a **digital** home and a connected lifestyle. SONICblue holds significant financial assets, global marketing capabilities and a focused technology portfolio, that includes Rio(R) **digital** audio players, HomeFree(TM) home networking solutions, Diamond(TM) Internet access products and frontpath(TM) Information Appliances.

Except for the historical information contained herein, the matters set forth in this press release, including statements as to the expected date of availability of the SupraMax USB modems, are forward-looking

statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are subject to risk and uncertainties that may cause actual results to differ materially, including, but not limited to, the ability of the Company, its suppliers, retailers and distributors to meet the scheduled product release date, the impact of competitive products and pricing and of alternative technological advances and other risks detailed from time to time in the SEC reports of SONICblue Incorporated, including its annual report on Form 10-K for the year ended December 31, 2000. These forward-looking statements speak only as of the date hereof. SONICblue disclaims any intention or obligation to update or revise any forward-looking statements.

Note to Editors: SONICblue, Diamond Multimedia, frontpath, HomeFree and SupraMax are trademarks of SONICblue Incorporated. Rio is a registered trademark of RioPort.com, Inc. and is used by SONICblue under license from RioPort.com, Inc. Other marks referenced herein are the property of their respective owners.

Note (1): To take full advantage of the new V.92 standard, your Internet Service Provider (ISP) must be equipped with V.92 modem technology.

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8/9/9 (Item 9 from file: 20)

16198965

The American Education Corporation Announces Letter of Intent With Tengtu International

BUSINESS WIRE

April 17, 2001

Journal Code: WBWE? Language: English? Record Type: FULLTEXT

Word Count: 1018

OKLAHOMA CITY--(BUSINESS WIRE)--April 17, 2001--Company Will License Technology and Content for China's K-12

and Post-Secondary Educational Markets

The American Education Corporation (OTC/BB:AEDU) (AEC) today announced that the Company has signed a letter of intent with Tengtu International, Inc. (OTC/BB:TNTU) (Tengtu) of Toronto, Canada, entering into a strategic partnership to market, **sub-license** or deploy its recently released A+nyWhere Learning System(TM) management software, with integrated authoring and assessment tools, for the People's Republic of China (PRC).

Tengtu is a U.S. public corporation that develops and markets educational and entertainment multimedia software and related services through a joint venture and its subsidiaries in the People's Republic of China and Hong Kong. Tengtu is currently partnering with Microsoft China to deliver an interactive software package to approximately 14,000 schools targeted in the PRC's Operation Morning Sun by the Chinese government to bring the benefits of information technology (IT) to selected schools. Tengtu's role in China, through its several joint ventures with Chinese companies such as Legend **Digital** China, is to: (1) Fulfill the government mandate with its Chinese partners to bring the K-12 school system of the People's Republic of China into the twenty-first century with information technology; and (2) Assist the government in achieving the mandate jointly with Tengtu's Chinese corporate partners to act as the gateway to China's educational and cultural electronic publishing sectors.

Tengtu Chairman & CEO Pak K. Cheung revealed that the new business model of the company reaches beyond its current K-12 base in China, where it markets the Tengtu Total Solution to a universe of 800,000 primary and secondary schools with 200 million pupils, to the huge post-secondary e-learning market in the world's largest nation. "Partnering with American Education will give Tengtu a powerful platform to penetrate the adult education and training market which dwarfs our original K-12 market, which is vast in itself. The A+nyWhere Learning System software engine perfected by American Education is just what we have been looking for in terms of authorability, flexibility and scalability to serve not only our present K-12 clients but also the enormous emerging market for post-secondary education as China tries to catch up with the West," Cheung stated. Additional information on Tengtu and its various China-based joint venture partnerships may be found at www.tengtu.com. These objectives are addressed within China by Tengtu's joint venture, Tengtu United Electronics, Ltd. in which Tengtu owns a 57% interest. The remaining 43% is jointly owned by Beijing Tengtu Culture and Education Development Company, Ltd., which includes the following major Chinese-owned IT corporations as partners: Legend Computer Group, Great Wall Computer Group, Taiji Computer Corporation and Beijing Oriental Lianfa Company, Ltd.

In making this announcement, Jeffrey E. Butler, AEC's Chief Executive Officer, stated: "This is a very exciting development for the Company. The long-range potential of this strategic partnership is significant to the continued development and emergence of American Education as a significant player in the future of e-learning on a worldwide basis. Tengtu approached the Company after learning of the capabilities of AEC's new and recently released Java 2-based learning management system (LMS) software. Tengtu had been searching for some time for technology that had the capabilities, flexibility, authorability and scalable attributes designed into the A+nyWhere Learning System(TM) software engine. Critical to their specifications was an authorable, scalable software-based platform, capable of handling student academic performance data integration with major database providers that would be capable of supporting long-term development and delivery of instructional content in the Chinese language with accompanying specialized assessment testing. Further, the platform had to be suitable for a range of **other** to-be-developed instructional content, not only for the K-12 market, but also for the broader adult content needs for training and the post-secondary markets. Simply put, this arrangement is possible because these features and more are designed into the A+nyWhere Learning System`s powerful learning management system engine technology.

Butler continued, "With respect to the future impact of this development on AEC's future financial performance, it is too early to forecast or speculate on potential results. Many details have to be sorted out regarding the final nature of distribution of the financial results of the strategic partnership. Clearly the opportunity is large and, if everything goes according to plan, the future for new potential business is significant and should have a positive impact on the Company's future top

line growth and earnings."

The Company's A+nyWhere Learning System and A+SSESS! Version 3.0, released in early 2001 provides for an updated software version to support the Company's extensive curriculum content and skills assessment tools in a fully managed solution that is designed to run over networks and the Internet. This family of educational software products provides an integrated suite of grade level 1-12 software for Reading, Mathematics, Language Arts, Science, Writing, History, Government, Economics and Geography publications. In addition, the Company has developed companion academic skill assessment products, A+SSESS!(TM), to provide educators with the means to more effectively target the use of the Company's curriculum content and to manage for accountability. Spanish language versions are available for Mathematics and Language Arts for grade levels 1-9. The Company's curriculum content is electronically linked and aligned to the World Book Multimedia Encyclopedia, the leading reference encyclopedia for the school market allowing reference content from World Book's rich multimedia curriculum-based reference material to be accessed directly from A+LS lessons. The A+LS comprehensive family of educational software is now in use in over 9000 schools, centers of adult literacy and correctional institutions.

Note: Certain matters discussed above concerning the future performance of the Company are forward-looking statements intended to qualify for the safe harbors from liabilities established by the Private Securities Litigation Reform Act of 1995. These forward-looking statements can be identified as such by words such as "believes," "anticipates," "plans," "expects" or words of similar import. The future performance of the Company is subject to a number of factors including, but not limited to, general economic conditions, competitive activity and funding available to schools.

CONTACT: The American Education Corporation Jeffrey E. Butler, 800-34APLUS or 800/222-2811 E-mail: jeb@amered.com URL: www.amered.com or Halliburton Investor Relations Geralyn DeBusk, 972/458-8000 08:00 EDT APRIL 17, 2001

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8/9/10 (Item 10 from file: 20)

13128811

In focus: Convergence

BUSINESS LINE October 04, 2000

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Word Count: 1059

Technological advances in recent times have resulted in two key developments: the modification of existing networks to provide integrated services; and secondly, the transition in information transmission from the

analogue to digital mode.

The technological leap resulting from these advances has resulted in convergence, which may be best understood as the ability of the same network platform or infrastructure facility to carry different kinds of services. A key feature of network convergence is the move towards the transmission of information, whether voice, data, sound or pictures, in digital form. Digital transmission may be carried over broadcast networks or over terrestrial wired or wireless infrastructure. In popular parlance, convergence is symbolised as the coming together of telecommunication infrastructure to provide services such as cable television, basic telephone services and Internet access services through a single infrastructure. In reality, the term convergence carries with it implications of a wider magnitude, impacting lifestyles, the conduct of business, revenue models, and even regulatory frameworks around the world.

The fundamental problem in the existing legal framework governing telecommunications in India is two-fold.

Firstly, regulation of convergence should aim to promote the growth of telecom infrastructure that supports convergence as well as enable telecom services to be provided through a common infrastructure. This would require an effort to remove the multiplicity of licensing requirements and merge regulations governing various services.

Presently, telecommunication services are regulated by the Union Government through the Ministry of Communications. A licence under the Telegraph Act, 1885, issued by the President of India acting through the Telegraph Authority is required for providing a telecommunication service. A separate and distinct licence is required for each service such as Internet access services, basic telephony and cellular telephony. On the other hand, broadcasting services such as radio or television, though governed by the same statute, the Telegraph Act, 1885, fall under the purview of a distinct ministry in the Union Government, the Ministry of Information and Broadcasting.

Secondly, there are regulatory bottlenecks that prevent efficient use of the existing infrastructure to carry information and provide services. Legal and regulatory reform would have to address these basic issues.

Conceptual de-linking

A legal framework that seeks to promote and regulate convergence should move towards conceptually de-linking the infrastructure provider, telecom service provider(s) and the content provider, recognising that these may be distinct and separate entities, requiring different types of regulation.

There have been steady changes in policy as a response to the debate on convergence. At the regulatory level, there has already been a recognition of two categories of infrastructure service providers (IP-I and IP-II).

IP-I guidelines would be applicable in the context of infrastructure providers who seek to provide dark fibres, right of way, duct space, towers on lease/rent out/sale basis to the licensees of telecom services, on mutually agreed terms and conditions.

IP-II guidelines would be applicable for infrastructure providers who lease/rent out/sell end to end bandwidth, i.e., **digital** transmission capacity capable of carrying messages, to other licensees of telecom services on agreed terms and conditions.

Further, in December 1999, a group on Telecom and IT Convergence was constituted. This group later split into three sub-groups, including one whose terms of reference were to prepare the draft of a new, comprehensive, statute to replace the Indian Telegraph Act, 1885.

In its draft report submitted in August 2000, the group recommended the constitution of a single regulatory authority for both broadcasting and telecom services, to be known as the Communications Commission of India.

At a conceptual level, the group has recommended the regulation of

carriage and content, through the enactment of a distinct statute titled the Communications (Carriage and Content) Bill, 2000. The sub-group has proposed that this statute incorporate various aspects of the Broadcasting Bill, 1997, as well as supersede and merge various other statutes, such as the Telecom Regulatory Authority of India Act, 1997, the Indian Telegraph Act, 1885, the Indian Wireless Telegraphy Act, 1933 and the Cable Television Networks Regulation Act, 1995.

A sub-group on Convergence was constituted in late 1999, whose mandate was to prepare a draft statute to replace the Indian Telegraph Act, 1885. Legislative attempts in the form of the Communications Bill, 2000, and the Information, Communication and Entertainment Bill, 2000, have also been circulated for public comment, which address, to some extent, the need for a common licensing framework for telecommunications services.

The sub-group on Convergence came out with its report in August 2000. It seeks to put in place the Communications Commission of India that would take within its purview the licensing framework for telecommunication, broadcasting, data communication, multimedia and

other related technologies. Composite licences

The draft report also contemplates a specific category of licences termed as "composite licences" that could be granted for multiple telecommunication services or facilities. It also indicates that the Government would consider amendment of existing licences.

However, certain aspects of the legislation proposed in the draft report require closer scrutiny in view of the practical implications. The concept of "composite licences" would have to be clarified and facilitated without having to resort to multiple licensing requirements/applications. Secondly, a legal framework that seeks to promote and regulate convergence should recognise that the person establishing the telecommunications infrastructure that enables provision of multiple services through the same network, would not have control over the content of each of the services. The network service provider and the telecommunications service provider/s could be different entities.

For instance, the person establishing a cable television network would, ordinarily, have no control over the content being distributed over the network, since that would be the domain of the broadcaster. Such distinctions require to be taken into account, especially with regard to control and regulation of **content**.

Another aspect to be noted is that the law should not seek to over-regulate. The draft bills envisage licensing for all kinds of network facilities, including fixed links and cables, towers, poles, ducts, and pits. Such a broad provision could lead to a situation of unreasonable control, and would require reconsideration.

The manner in which legal and regulatory reform is carried out will determine the manner in which convergence impacts our daily lives. The authors are with Nishith Desai Associates, Mumbai.

This article reflects the opinion of the authors alone and not necessarily of their firm. It should not be construed as legal advice.

Nishith Desai Associates, 2000

R. V. Anuradha Vivek Durai

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8/9/11 (Item 11 from file: 621)

02527318 ? **Supplier Number:** 62512955

Sun Microsystems Assembles Industry-Leading Partners in Its iForce(SM) Solution Set for Mobile Wireless Internet.

PR Newswire, p NA

June 6, 2000

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Portfolio Cuts Through the Noise to Deliver the Best Solutions

For the Creation, Delivery and Management of Mobile Wireless Portals and Services ATLANTA, June 6 /PRNewswire/ --

Sun Microsystems, Inc. (Nasdaq: SUNW) today unveiled its iForce(SM) Solution Set for Mobile Wireless Internet. This growing portfolio, which was defined by Sun and developed with solutions from Sun and 19 other important innovators that are shaping the mobile wireless industry, is designed to provide enterprises, content providers and service providers with a flexible and powerful infrastructure for deploying wireless-enabled portals and services. Through the iForce wireless solution set, customers are able to develop and deliver secure, personalized and localized information, communication, commerce and entertainment services to customers on a wide variety of wireless devices and platforms.

In addition, the iForce wireless solution set — which includes solutions from Sun, 724 Solutions Inc.; Aether Systems, Inc.; AirFlash; Art Technology Group (ATG); BroadVision; Cambridge Positioning Systems; enCommerce; Entrust Technologies; Everypath, Inc.; Inktomi Corp.; iPlanet E-Commerce Solutions, a Sun-Netscape Alliance; Nokia; Peramon; Phone.com; Portal Software; Siebel Systems; SignalSoft; Spyglass and Vignette — will be incorporated into Sun's iForce(SM) Ready Center, first in the Menlo Park, California, center. The iForce Ready Center will help Sun customers evaluate a wireless approach that best fits their business needs, which can help reduce application design and development time, reduce costs, and ensure faster time-to- market.

"Sun's vision for enabling a networked world is more true today than ever," said Doug Kaewert, vice president, Market Development at Sun Microsystems, Inc. "In pulling together the best of industry partner technologies for our iForce wireless solution set initiative, Sun is helping companies easily create their ideal, end-to-end mobile wireless infrastructure for delivery of content and services to their consumers anywhere and on any device."

With its wireless portfolio, Sun continues its leadership position in delivering the products, technologies, services, partnerships and programs which cater to the unique needs of the worldwide mobile market.

Maximum Flexibility, End-to End

Since wireless application and services delivery requirements vary by customer and by industry, the iForce wireless solution set was designed to give customers maximum flexibility.

The solutions in this wireless portfolio are those that have earned Sun's recognition for excellence in their field. The iForce wireless solution set features mobile wireless solutions that are based on industry-leading and open standards and technologies such as eXtensible Markup Language (XML), Wireless Application Protocol (WAP) and Java(TM) technology, and address the key market segments that comprise an end-to-end wireless application infrastructure solution:

Platform, System and Enterprise Infrastructure -- Sun's proven Solaris(TM) Operating Environment and massively scalable enterprise and carrier-grade UltraSPARC(TM) platforms, combined with industry- leading

enterprise and Web solutions, provide for the most robust, scalable and secure wireless Web application foundation.

Wireless Internet Servers and Gateways -- Wireless Internet servers and gateways bridge today's wireless voice communications networks with the Internet for the delivery of wireless content and data services onto digital mobile phones and other wireless terminals. Industry partner solutions that are part of the iForce wireless solution set include Nokia's WAP Server, Peramon's WAP Gateway and Phone.com's UP.

Link Server Suite.

Wireless Portal Infrastructure -- iPlanet (TM) Wireless

Server solution provides a scalable, standards-based platform

for delivering mobile data services, like messaging, calendaring and
directory services, as well as a modular, extensible architecture for
developing advanced, value-added services. To complement the iPlanet
Wireless Server solution, the iPlanet (TM) Portal Server brings together
online communities of connected users by providing personalized, more
secure aggregation of content and seamless integration with back-end
applications.

Wireless Content Publishing and Personalization -- ATG Dynamo, BroadVision One-to-One and Vignette V/5 are leading solutions for commerce and content infrastructure and enable the personalization of wireless services and applications.

Content Transformation and Transcoding -- Spyglass Prism enables the transformation of Internet content from XML or HTML into a variety of wireless content formats, such as Wireless Markup Language (WML), Compact HTML (C-HTML), Mobile Markup Language (MML), as well as **other** formats.

Performance and **Content** Delivery -- Infrastructure software products from Inktomi Corp. including Traffic Server(TM), Network Cache Platform and Content Delivery Suite enable faster and on-time access to wireless content and applications by storing frequently accessed data closer to the network edge or the end-user.

Wireless Location Infrastructure -- Wireless location servers provide network operators with the ability to determine the location of mobile subscribers in order to provide them with relevant content and services. SignalSoft's local.info and Cambridge Positioning Systems' CURSOR are key location solutions in Sun's portfolio of wireless solutions.

Security, Authentication and Authorization -- Sun has incorporated Entrust.net WAP Server Certificates from Entrust, getAccess from enCommerce, and iPlanet's Sun SecureNet solution into its portfolio for the security and integrity of eBusiness data on wireless information, communications and transactions.

Wireless Billing and Customer Care -- To address the wireless service providers' need to develop and incorporate flexible billing and customer support capabilities, Sun has included Siebel System's Wireless eBusiness applications and Portal Software's Infranet in its iForce Solution Set.

Wireless Application and Content Services -- Wireless application and content service providers enable customers with turn-key, custom, and hosted wireless applications and content. Key applications include financial services, telco, search, directory, location-based information and enterprise work-force automation. iForce wireless solution set members delivering these solutions on the Solaris Operating Environment platform include 724 Solutions, Aether, Everypath and AirFlash.

Professional Services -- New Sun(SM) .Com Consulting Services for Wireless Service Providers helps customers build network services platforms that can handle massive scale with confidence. Sun platforms can securely and reliably support accelerated growth requirements and can be designed to fulfill a wide range of accessibility requirements. Sun consultants help customers design and deploy an integrated solution that enables maximum performance, high availability, orders-of- magnitude increases in scale, and the flexibility to adapt to ever changing business and technical requirements.

More solutions, enabling specific vertical and horizontal application and industry needs, will be added to the portfolio based on identified market need and qualified application and technology availability.

iForce Ready Center: Painless Solution Trial and Infrastructure Design

Customers who need hands-on, in-person help to dot-com their businesses, can take advantage of Sun's iForce Ready Centers, which conduct proof-of-concept demonstrations of Sun and industry partner solutions. The center provides customers with architectural blueprints or guidelines for the design, development and deployment of dot-com services on the Sun platform. This center can assist Sun customers with everything from brainstorming the technological options for creating a wireless infrastructure, to quick proof- of-concept implementation, to actual pilot programs.

About iForce Solution Sets

An iForce Solution Set is an aggregation of established best-of-breed applications that are scalable, easy to customize and follows open standards. These portfolios of solutions give customers a jump on the dot-com process by providing a scalable, proven blend of software, hardware, networking, financing and consulting services all in one simple, manageable relationship. In addition to the iForce wireless solution set, Sun today announced iForce Solution Set for IBPP (see "Sun Microsystems, iPlanet, VeriSign and Portal Software Launch the iForce Solution Set for Internet Bill Presentment and Payment"). Previously, Sun announced the iForce Solution Set for Retail and the iForce Solution Set for Portals. By design, Sun iForce Solution Sets are a growing community of products and technologies that cut through the noise in the marketplace by identifying the best in their class, helping enterprises to immediately fulfill their eBusiness strategies and compete more effectively in the Internet economy. iForce Solution Sets can help a company create a sustainable dot-com business advantage while reducing risk, shortening time-to-market and minimizing the dot-com investment.

Availability

The iForce Solution Set for Mobile Wireless Internet is now available through participating solution providers and will be shown at Sun's iForce Ready Center. For more detailed information including technical specification, white papers, and sales contacts please visit http://www.sun.com/iforcewireless/.

About Sun Microsystems, Inc.

Since its inception in 1982, a singular vision -- The "Network Is The Computer"(TM) - has propelled Sun Microsystems, Inc., to its position as a leading provider of industrial-strength hardware, software and services that power the Internet and allow companies worldwide to dot-com their businesses. With \$14.2 billion in annual revenues, Sun can be found in more than 170 countries and on the World Wide Web at http://sun.com .

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license and are trademarks or registered trademarks of SPARC International, Inc. in the United States and other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc.

Netscape Navigator is a trademark or registered trademark of Netscape Communications Corporation.

Press announcements and other information about Sun Microsystems are available on the Internet via the World Wide Web using a tool such as Netscape Navigator(TM) or Sun's HotJava(TM) browser. Type http://sun.com at the URL prompt.

*Please see release addendum "iForce Solution Set for Mobile Wireless Internet Participant Testimonials"

iForce Solution Set for Mobile Wireless Internet Participant

Testimonials

iPlanet E-Commerce Solutions, a Sun-Netscape Alliance

"A consistent, complete set of solutions like the iForce portfolio will significantly accelerate delivery of standards-based mobile services. iPlanet contributes an tremendous track record of internet and service provider success, and we look forward to working even more closely with the iForce solutions providers going forward to continue driving wireless market expansion." -- Dr. Stuart Wells, Senior Vice President, iPlanet E-Commerce Solutions

724 Solutions, Inc.

"724 Solutions believes in empowering consumers by providing access to the information that is most important to them -- on any mobile device. Working with industry-leading partners such as Sun Microsystems, we continue to build upon our highly scalable, secure and robust financial services platform to enable financial institutions to deliver a personalized wireless offering. Being part of Sun's iForce Solution Portfolio for Mobile Wireless Internet provides us with a new channel to reach our customers and, ultimately, consumers around the world." -- Greg Wolfond, Chief Executive Officer, 724 Solutions Inc.

AirFlash

"AirFlash is a leading provider of wireless location-based content and m-Commerce infrastructure for mobile carriers and portals. We are very excited that Sun selected AirFlash as part of its iForce solution set because of our ability to provide uniquely compelling location-based content for mobile users." -- Rama Aysola, Founder and CEO, AirFlash, Inc.

Art Technology Group (ATG)

"We are pleased to deepen our partnership with Sun by having ATG's Dynamo Product Suite be part of the iForce solution set because of the clear value the portfolio brings to customers. The wireless channel presents a tremendous opportunity for e-businesses and Dynamo allows those companies to fully capture the value of personalized customer relationships over the wireless Web today. Our commitment to industry standards, including J2EE(TM), makes it possible for businesses to quickly launch multi-channel applications built on the Dynamo Product Suite with the flexibility to readily inter-operate with third party solutions and the scalability to keep up with hyper growth." -- Joseph Chung, CTO, Art Technology Group

BroadVision

"BroadVision provides a comprehensive suite of integrated and personalized e-business applications that have enabled many customers to leverage targeted Web-to-wireless today. Delivering that information via wireless devices creates increased performance demands as more users access the Web from anywhere. BroadVision's current live customers prove the applications, on a Sun platform, support this demand." -- Simon King, Vice President, Products, BroadVision, Inc.

Entrust Technologies

"Sun's Wireless Solutions portfolio consists of best-of-breed technology designed to help customer organizations do business anywhere, anytime, using the device of choice. As one of the first companies to deliver **digital** certificates to enable trusted wireless transactions, we're pleased to contribute solutions to the Sun portfolio to secure the integrity of e-business transactions and communications for customers." -- Bob Heard, Senior Vice President, Marketing and Business Development, Entrust Technologies

EveryPath, Inc.

"Everypath is honored to be one of the companies handpicked by Sun as a key enabling component of the iForce wireless solution set. As a wireless application service provider (ASP), we give customers a rapid on-ramp to the wireless Internet. We leverage their existing web assets so customers don't need to create a separate wireless site. What companies originally developed for the wired Web is what their wireless customers will get on their wireless site -- the transaction capability, security and content

that customers have come to expect. We enable customers to leverage their existing back end systems and infrastructure, reduce the need for custom programming and can dramatically save implementation time and cost." -- Venktesh Shukla, CEO, Everypath

Portal Software

"Sun has put together an outstanding set of solutions for wireless Internet service providers. Today's dynamic wireless Internet businesses require proven products that are scalable and flexible -- qualities which are at the core of Infranet. We are confident that the solutions enabled by Sun will greatly improve time to market for service providers." -- Steve Sommer, Vice President, Marketing and Business Development, Portal Software Siebel Systems

"Siebel Wireless allows consumers to more effectively communicate with suppliers and companies, and effectively share customer information across multiple distribution channels. Participating in Sun's iForce Solution Set for Mobile Wireless Infrastructure enables Siebel to reach even more companies and help them quickly deploy wireless-enabled Web sites and applications to support sales, channel management and customer organizations of all sizes." -- Bruce Cleveland, Vice President, Alliances, Siebel Systems

Spyglass

"Sun's iForce wireless solution set promotes the creation of wireless content delivery solutions that can be unique to each customer's own requirements. The ability of Spyglass Prism to transform Web content into the many formats of the increasing variety of wireless devices is an essential step in any delivery system that supports multiple handsets and PDAs." -- Jack Armstrong, Vice President, Mobile Data Solutions, Spyglass Inc.

Vignette

"Vignette has been on the leading edge in recognizing the growing customer demand for personalized content delivered through multiple channels like wireless. Our participation in Sun's iForce solution set provides customers with an excellent opportunity to evaluate Vignette's wireless platform for the emerging technologies required to drive business in the wireless era." -- Bill Daniel, Senior Vice President, Products, Vignette

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Govt. to establish Authority for private broadcast stations

PAKISTAN PRESS INTERNATIONAL INFORMATION SERVICES LIMITED April 07, 2000

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Islamabad April 07 (PPI) The Federal Government will shortly establish an Authority to regulate establishment and operation of privately owned broadcast media in Pakistan.

The establishment of Regulatory Authority for Media Broadcast Organisations (RAMBO) will be preceded by promulgation of an Ordinance on the subject, which is expected by May 2000.

This was announced by the Advisor to the Chief Executive on Information and Media Development Javed Jabbar while addressing a press conference at the PID press centre here Friday. He was flanked by Federal Secretary Information Khawaja Ijaz Sarwar and Principal Information Officer (PIO) Ashfaq Ahmad Gondal.

He said the objectives of the policy on private broadcast media include improving the standards of information, education and entertainment, enlarging the choice available to the people of Pakistan in the media for news, current affairs, religious knowledge, art, culture, science, technology, economic development, social sector concerns, music, sports, drama and other subjects of public and national interest, facilitating devolution of power and responsibility to the grass-roots by improving the access of the people to mass media at the local level and ensuring accountability, transparency and good governance.

About the categories of the broadcast station to be allowed to operate, he said there will be local area, community based stations, specific and specialised subject stations, provincial scale stations, national scale stations and international scale stations.

Javed Jabbar said the RAMBO will issue the necessary certificates and documentation to the broadcast stations to conduct up-link between a ground transmission facility and a satellite, in order to transmit any programme **content** for broadcast purposes within or outside Pakistan.

He said the Authority will also have other powers required to give effect to the objects of the Authority including prohibition of content likely to incite violence, or disorder, grant of exemption, monitor violations and frame rules, etc.

He said the existing national broadcasters, being Pakistan Broadcasting Corporation, will continue to be regulated by the Pakistan Broadcasting Corporation Limited will continue to be administered under the provisions of the Companies Ordinance 1984.

He said other existing private broadcasters which had been granted respective monopolies in multi-modal distribution system cable TV and in FM radio will hence forthwith be regulated by the new Ordinance except in respect where specific exemptions are granted by the Authority. He said the Authority will function as a public interest body applying the principles of transparency and fairness to all its work.

Giving details about RAMBO, he said the Authority will consist of a Chairman and members appointed by the President of Pakistan adding that the Chairman of the Authority will be a person of eminence and integrity. He said the Chairman and members, unless earlier removed for misconduct or physical or mental incapacity, shall hold office for period of four year.

He said the Chairman and members shall be paid such emoluments as may be determined by the Federal Government and shall not be varied to their disadvantage during their term of office.

Javed Jabbar said the Chairman shall not, during his term of office,

engage himself in any other service, business, vocation or employment, or enter into the employment of, or accept any advisory or consultancy relationship with any person or entity engaged in applying for a license from the Authority or operating a broadcast station established under the purview of the Authority or in providing services or products to the Authority on any of the projects, schemes, proposals or plans undertaken, executed or supervised by the Authority or any related undertaking of such aforesaid person or entity.

He said the Chairman, members, members of its staff, experts consultants, advisors, other officers and employees of the Authority will be deemed to be public servants within the meaning of section 21 of the Pakistan Penal Code, 1980 (XLV of 1860).

He said the Federal Government will provide funds for the establishment and operation of the Authority adding that the Authority will also obtain funds through fees charged for the issuance of licenses for establishing and operating broadcast station.

He said the Federal Government will also establish a Council of Complaints to review complaints made by persons or organizations from the general public against any aspects of programmes broadcast by a station established through a license issued by the Authority and render opinions on such complaints.

The Council will comprise a Chairman and five members being citizens of eminence from the general public. At least two members shall be women.

Narrating details of the terms and conditions for the licensee, he said the broadcaster who is issued a **license under** this Ordinance will respect the sovereignty, security and integrity of Pakistan and the national, cultural and religious values and the principles of public policy as enshrined in the Constitution. He said the broadcaster will also ensure that programmes and advertisements do not encourage violence, terrorism, racial, ethnic or religious discrimination, sectarianism, or hatred;

He said another condition on them will be to broadcast programmes in the public interest specified by the Federal Government or the Authority in the manner indicated by the Government or, as the case may be, the Authority, provided that the duration of such mandatory broadcast programmes do not exceed ten per cent of the total duration of broadcast by a station in twenty-four hours except if, by its own volition, a station chooses to broadcast such content for a longer duration.

He said they will not be allowed to sell, transfer or assign any of the **rights** conferred by the license without prior written permission of the Authority.

He disclosed that the concurrence of the provincial government where the station is to be located will also be a condition. He said in case of objection from the Provincial Government, the applicant will be afforded an opportunity to clarify his position. He said the Authority will take a decision on the application for a license within a specified time limit from the receipt of the application.

Javed Jabbar said no person will be entitled to the benefit of any monopoly or exclusivity in the matter of broadcasting or the establishment and operation of broadcast stations or in the supply to or purchase from, a national broadcaster of air, time, programmes or advertising material.

He said in granting a license, the Authority will ensure that, as far as possible, open and fair competition is facilitated in the operation of more than one channel in any given unit of area or subject and that undue concentration of media ownership is not created in any city, town or area and the country as a whole by virtue of the applicant for a broadcast license already owning or operating, as sole or joint shareholder any other broadcast station, printed newspaper or magazine.

He said a person who already owns a media unit will not necessarily be ineligible for grant of a license by virtue only of the fact that the person already owns a media unit. He however said unnecessary concentration of power will be avoided.

He said a license will be valid for a period of several years e.g. ten years or more, subject to payment of the annual fee prescribed from time to time.

He said a license will not be granted to a person who is not a citizen of Pakistan or resident in Pakistan, a foreign company organized under the laws of any foreign government, or a company the majority of whose shares are owned or controlled by foreign nationals or companies whose management control is vested in foreign nationals or companies.

(THROUGH ASIA PULSE)

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8/9/13 (Item 13 from file: 20)

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A Pet Lovers Dream Comes Online; GoodPets.com Launches the Biggest & Best Online Pet Super Store Ever

BUSINESS WIRE September 08, 1999

Journal Code: WBWE? Language: English? Record Type: FULLTEXT

Word Count: 447

NEW YORK--(BUSINESS WIRE)--Sept. 8, 1999--Zero-G Commerce Announced the Launch of

GoodPets.com(TM) The Internet's Favorite Pet Store

Zero-G Commerce Corporation, the owner and operator of a growing portfolio of e-commerce services today announced the launch of its latest Internet-based superstore, GoodPets.com(TM): The Internet's Favorite Pet Store on the World Wide Web at http://www.goodpets.com.

GoodPets.com(TM) features the most extensive array of pet supplies to be found on the Internet. The site includes numerous pet food products, pet accessories, and resources for pet owners such as books and videos and well as valuable links to other related web

content focusing on the care of domestic pets. GoodPets.com(TM)
is unique insofar as hard-to-find products like a drag racer for a hamster
and a tuxedo for a ferret are available to GoodPets.com(TM) shoppers with a
simple keystroke. GoodPets.com(TM) caters to needs of dogs, cats, birds,
fish, and reptiles as well as to those of small animals. The site draws its
uniquely charming look from the illustrations of world famous cartoonist
Charles Barsotti.

"For any pet lover and every pet owner, GoodPets.com solves the problem of finding hard-to-find items, taking a trip to the pet store and remembering to stock up on a monthly basis," said Mark Kahn, President and CEO of Zero-G Commerce Corporation. "And the wonderfully amusing illustrations by Charley Barsotti gives GoodPets.com(TM) we feel, just another `paw' up on the competition. We are extremely excited about launching GoodPets.com(TM) and are committed to providing great service for all customers and individuals visiting our site."

About Zero-G Commerce Corporation

Zero-G Commerce Corporation, The Way E-Commerce Works(TM), a privately held company, is known for creating, developing and operating electronic commerce stores on the global Internet. The Company launched its first Internet-based store, a gourmet food emporium called Caesar's Palate: The Epicurean Empire (http://www.caesarspalate.com) in July 1998, and launched its second online store, a natural vitamin and supplement service called Nature's Aide (R) (http://www.naturesaide.com) in April 1999. The Company anticipates launching a home improvement portal and Do-It-Yourselfer's superstore called iRenovate.com later this year.

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CHEMICALS

Late this month, NIPPON FLUOROWARE K.K. is scheduled to begin making fluoroplastic injected-molded wafer-handling carriers for the semiconductor industry at its Yonezawa, Yamagata prefecture factory. NIPPON VALQUA INDUSTRIES, LTD., which owns 10 percent of the company, has been producing this product but, as part of a reorganization of its fluoroplastic business, decided to hand over production to Nippon Fluoroware. Manufacturing equipment is being transferred to Nippon Fluoroware as well as up to 20 employees. Chaska, Minnesota-headquartered ENTEGRIS, INC. is the joint venture's majority (90 percent) owner. This critical materials management company was formed in June through the merger of FLUORO-WARE, INC. and a Colorado Springs, Colorado firm in the same business.

To better support users of its semiconductor-grade materials, DOW CHEMICAL CO. tied up with HITA-CHI CHEMICAL CO., LTD. Under the agreement, the Tokyo company will handle sales, technical support, warehousing and distribution of Dow's SiLK semiconductor dielectric resins, Cyclotene dielectric resins and ancillary chemicals for the semiconductor interlayer dielectric market. People at Dow's subsidiary will be detailed to Hitachi Chemical to share technical support and marketing responsibilities for these products. SiLK resins, introduced in 1996, were developed specifically for use as an interlayer dielectric material in high-performance integrated circuits. They are enjoying growing acceptance in Japan, Dow says, in large part because they help to produce chips with faster processing speeds and reduced "cross talk." SiLK resins are suitable for all existing CMOS (complementary metal-oxide semiconductor) interconnect technologies using copper/damascene or aluminum/tungsten technologies.

Meanwhile, HITACHI CHEMICAL CO., LTD. became the fourth major company to be licensed by RE-SEARCH FRONTIERS INC. to make and market on a nonexclusive worldwide basis SPD (suspended particle device) film for electrically and instantaneously control-ling the amount of light passing through windows, sky-lights, sunroofs, eyewear and the like as well as for enabling brighter, easier-to-read flat-panel computer displays. The Woodbury, New York company also gave Hitachi Chemical the right to make and sell to authorized users emulsions used to produce SPD film. Earlier, Research Frontiers made DAINIPPON INK AND CHEMICALS, INC. the first licensed supplier of its emulsions (see Japan-U.S. Business Report No. 358, July 1999, p. 13).

With a reimbursement price set for Gemzar (gem-citabine HCI), ELI LILLY AND CO.'s subsidiary is marketing this first-line treatment for inoperable, locally advanced or metastatic nonsmall-cell lung cancer. A nucleoside analogue that is used with ciplatin, another anticancer drug, the chemotherapeutic agent disrupts the process of cell replication, thereby slowing or stop-ping the progression of the lung cancer. Gemzar, which the Ministry of Health and Welfare approved for sale last March, also is indicated for the treatment of pancreatic cancer, although this use has not yet been approved in Japan.

ZENYAKU KOGYO CO., LTD. will have exclusive rights to commercialize for the Japanese market a psori- asis immunotherapeutic agent codeveloped by CO-RIXA CORP. of Seattle and New Zealand's GENESIS RESEARCH AND DEVELOPMENT CORP. PVAC currently is in Phase I/II trials in the Philippines. Under the multiyear agreement, Corixa will receive licensing fees, research funding and milestone payments from its Tokyo partner as well as royalties on future product sales. The American R&D-based biotechnology company recently gave JAPAN TOBACCO INC. rights to commercialize vaccine and antibody-based products from lung cancer antigens that it had developed (see Japan- U.S. Business Report No. 358, July 1999, p. 13). Through participation in the Microarray Technology Access Program an integrated system for high-throughput, quantitative gene expression analysis and functional genomics - TAKEDA CHEMICAL INDUS-TRIES, LTD. has gained preferential access to the global microarray technologies of Sunnyvale, California-based AMERSHAM PHARMACIA BIOTECH CORP. Takeda Chemical is the first major Japanese pharmaceutical company to join MTAP, an international consortium of some 30 drug, biotechnology and genomics companies and academic organizations interested in using DNA (deoxyribonucleic acid) microarrays to accelerate their R&D efforts. Amersham Pharmacia Biotech is the life sciences affiliate of PHARMACIA & UP-JOHN, INC. (45 percent) and NYCOMED AMERS-HAM, PLC (55 percent).

Engineers from the Murray Hill, New Jersey industrial gases business of BOC GROUP PLC and MITSU-BISHI CHEMICAL CORP. have codeveloped a new process for making maleic anhydride, a product used extensively in the production of synthetic fibers, resins, plastics, elastomers and rubber. The technology combines a MCC-developed catalyst for the oxidation of butane with a patented BOC Gases selective hydrocarbon separation system

that recovers and recycles unreacted butane from the maleic anhydride. The process has been deployed at a MCC pilot plant in Kurashiki, Okayama prefecture. Japan's top chemical manufacturer also plans to build a bigger facility to expand production using the joint technology. Both BOC Gases and Mitsubishi Chemical are licensing the technology. A Hawaiian marine biotechnology firm that produces an astaxanthin-rich product from microalgae has made its first sale in Japan. AQUASEARCH INC. did not name the buyer, describing it only as a life sciences company. Microalgae or microscopic plants produce many unique bioactive compounds that have application in such fields as natural colorings, nutraceuticals, pharmaceuticals, cosmetics and agrichemicals.

COMPUTERS AND PERIPHERALS

Few recent announcements have raised so many eyebrows in the computer world as the news that SILICON GRAPHICS, INC. and NEC CORP. would sell each other's supercomputers in Japan. The surprise re- flected the assumed animosity between the two resulting from the ultimately successful 1996-98 campaign waged by SGI's Cray unit, then an independent company, to prevent NEC from leasing a number-crunching computer to a partly government-funded U.S. climate research laboratory on what Washington agreed were unfair terms. Neither company said explicitly why they had decided to cooperate. One factor no doubt is the difficulty both have experienced selling high-performance computers in Japan's current economic climate and with mainstream computers becoming ever more powerful. Moreover, for months, Silicon Graphics has been attempting to restructure its subsidiary's operations to make them more growth-oriented. Whatever the reason for the tie-up, it marries SGI's expertise in both traditional vector supercomputers (Cray SV1, Cray T3E and Cray T90) and scalar supercomputers (the SGI Origin 2000) with NEC's vector architecture.

New marketing partners SILICON GRAPHICS, INC. and NEC CORP. did not have to wait very long to receive their first contract. The Institute of Fluid Science at Tohoku University, a longtime Cray customer, ordered a massive high-performance computing solution that has at its core a 640-processor version of the scalar SGI Origin 2000 supercomputer as well as NEC's new SX-5 vector supercomputer with 16 central processors. The hybrid system will have a data-processing capacity unmatched in Japan. Including workstations and other peripherals, the contract is worth \$44.3 million. Its new relationship with NEC CORP. also worked to SILICON GRAPHICS, INC.'s advantage when its partner received an order from the National Research Institute for Metals, part of the government's Science and Technology Agency, for a SX-5 system to replace the NEC supercomputer it has used since 1995. The system, slated to be operational in April 2000, will use SGI file and graphics servers. The SX-5 covered by the contract will be the biggest supercomputer NEC has ever built, featuring a top performance of 256 gigaflops (billion operations per second) and a 128-GB main memory.

IBM JAPAN LTD. sold MITSUI MARINE & FIRE INSURANCE CO., LTD. on the cost benefits of out-sourcing its computer operations. The 10-year contract, worth an estimated \$238.9 million, is expected to save the number-three property and casualty insurer some 10 percent of what it otherwise would have spent on in-formation technology requirements.

....IBM JAPAN LTD. reportedly will be tapped to run an on-line banking service for regional banks. JUROKU BANK, LTD. of Gifu prefecture and SURUGA BANK, LTD., which does most of its business in Shizuoka and Kanagawa prefectures, are spearheading the project. They expect to enlist as many as 30 fellow regional banks across the country by fall 2000. The sign-up cost will be about \$885,000 per bank, plus anywhere from \$212,400 to \$265,500 in annual fees. IBM Japan will install a server for each of the participating banks at one of its operations centers and link that machine to a bank's own data center.

By 2000, HEWLETT-PACKARD JAPAN LTD. forecasts, 80 percent of the PC servers that it sells will be assembled at the company's factory in the Hachioji section of Tokyo. That switch will give corporate customers the

chance to tailor the systems to their specific requirements. HP Japan already has started to provide some HP NetServer workgroup and departmental servers on a build-to-order basis. Previously, all of its PC servers were produced in the Philippines.

HEWLETT-PACKARD JAPAN LTD. has unveiled two other initiatives designed to boost revenues. It has begun a program to directly lease its most powerful servers and other computer equipment to promising Internet start-ups. These venture businesses lack the financial track record to lease hardware from mainstream leasing companies. At least one company that plans to auction used cars over the Internet already has taken advantage of HP Japan's new service. It signed a three-year lease on a \$354,000 Web server system. Under a companion program, HP Japan will tailor leases for Internet start-ups not only to hardware specifics but also to the number of users, hours of use and similar variables. In the year starting in November, HP Japan hopes to conclude direct lease contracts worth \$442.5 million.

GATEWAY 2000, INC.'s subsidiary already has opened Gateway Country stores in Tokyo, Nagoya, Osaka, Kobe, Hiroshima, Sendai and two other cities to complement its direct sales over the Internet or by phone. Now, it is experimenting with another retail concept. Gateway set up an in-store shop at a DAIEI, INC. outlet in Chiba prefecture in an attempt to piggyback on the business of mass merchandisers. The shop is staffed by Gateway personnel who can help consumers figure how out what kind of PC they want. If this experiment is successful, Gateway will consider extending the format to other locations.

A line of what are known as immersive-visualization graphics workstations is on the market from HEWLETT- PACKARD JAPAN LTD. with marketing sup-port from NISSHO ELECTRONICS CORP. Equipped with ultra-high-resolution displays that measure up to 30 feet wide, the HP VISUALIZE Center allows entire project teams in the automotive, aerospace and related industries as well as in the scientific community to optimize product development and scientific visualization.

Members can walk through an entire, full-size visual vehicle, airplane or building, interact with the data and re-solve design problems in real time before physical prototypes are built. Integral to the solution are HP VISUALIZE Unix workstations and HP VISUALIZE fx6 3D graphics with texture-mapping acceleration. HP Japan priced the HP VISUALIZE Center from \$672,600.

COMPAQ COMPUTER CORP. redefined the entry point to the high-end AlphaServer GS Series, a 64-bit computing line designed for the most demanding enterprise and technical-computing applications. The Alpha-Server GS60E can support as many as six 525-MHz Alpha 21264 (EV6) processors and provides up to 12 GB of system memory. It also allows hardware partitioning and features 64-bit Very Large Memory capabilities. The base configuration of the AlphaServer GS60E, which has two processors and 1 GB of internal memory, costs roughly \$144,200 for a machine running the Tru64 Unix operating system or \$147,800 for one using OpenVMS. Over the next two years, SUN MICROSYSTEMS, INC.'s subsidiary believes that it will be able to sell 20,000 units of the new Netra t1 Model 105 carrier-grade server to Internet services providers. Its optimism has several causes. For starters, the system is just 1.75 inches high, allowing 40 of them to be stacked in a 19-inch rack. That is two to four times more than is possible with competing systems. As a result, ISPs can more easily and cost-effectively dedicate separate systems to individual customers or to different infrastructure applications. Greater redundancy also can be built in. In addition, the Netra tl incorporates several ease-of-management fea-tures, including remote monitoring and control. The clincher in Sun's opinion is the price. A Netra t1 Model 105 with a 360-MHz UltraSPARC IIi processor, 64 MB of system memory and a 9.1-GB hard drive is just \$8,700.

Upgraded graphics accelerators now are standard on COMPAQ COMPUTER CORP.'s Windows NT-based line of Professional Workstation AP/SP models, which represent the big computer maker's attempt to balance the latest in

processor technology and high-performance 2D and 3D graphics solutions with afford-able pricing. For jobs that require entry-level 3D graphis using the Professional Workstations AP200 and AP400, the company switched its basic offering to ELSA Synergy II from ELSA GLoria Synergy. With the Professional Workstations AP500 and SP700, Compaq is shipping 3DLabs Oxygen GVX1. This controller is designed for technical professional users seeking a mid-range 3D graphics capability.

The rollout of Windows NT-based workstations incorporating the latest in Pentium III Xeon processor technology continues. The 550-MHz version of this engine, which has a 100-MHz system bus and full-speed cache, now powers DELL COMPUTER CORP.'s dual-processor- capable Precision WorkStation 610. Pricing for this high-end product starts at just \$3,200.....DELL COMPUTER CORP.'s subsidiary also brought the performance- enhancing 550-MHz Pentium III Xeon processor to the PowerEdge 6300 server. Designed for the most demanding business applications, this system supports four-way multiprocessing. The base configuration is priced from \$7,500.

In a further sign that American computer vendors believe that the Linux operating system could become just as popular in Japan as it is positioned to be in the United States, HEWLETT-PACKARD JAPAN LTD. is marketing its first PC server package with the freeware version of Unix preinstalled. The vehicle is the HP Net-Server E 60, a machine touted as easy to set up, back up, troubleshoot and expand. HP Japan priced the renamed HP Linux E 60 at less than \$4,400, including three years of support and service. A package without support services also is available.

Some of the first products that COMPAQ COM-PUTER CORP.'s subsidiary is offering through its new direct sales channel (see Japan-U.S. Business Report No. 359, August 1999, pp. 14-15) are the four models making up the network-targeted Prosignia Desktop 330 family. Equipped with the Windows NT 4.0 Workstation operating system, these built-to-order systems can be configured with either a 450-MHz or a 550-MHz Pentium III processor, 64 MB to 384 MB of internal memory and 8.4 GB to 37.7 GB of storage, plus a 52X CD-ROM drive. Pricing starts at a low \$1,200-plus (excluding a monitor), which Compaq thinks will give it an edge on the competition.

The power of the 600-MHz Pentium III chip has been brought to DELL COMPUTER CORP.'s desktop line for demanding networks. The base model of the OptiPlex GX1 600S, which includes a 440BX chipset, comes with 64 MB of system memory and a 6.4-GB hard drive. It lists for \$1,600. That is almost \$600 less than the previous entry-level OptiPlex GX1, which was powered by a 550-MHz Pentium III. Perhaps even more than its American rivals, Dell has been slashing prices on new products as well as deeply discounting the models they replace. The cuts extend to PowerEdge servers, OptiPlex GX1p desktops and Latitude notebooks.

In a worldwide release, DELL COMPUTER CORP. introduced its least expensive desktop system to date for corporate users. In Japan, the OptiPlex GX100 starts at \$870. That buys a small-form-factor machine with a 400-MHz Celeron processor together with the new 810 chipset, 4 MB of dedicated graphics memory, 32 MB of synchronous DRAM memory, a 4.3-GB hard drive, a 1.44-MB floppy drive, integrated 10/100 networking and a 15-inch monitor.DELL COMPUTER CORP.'s subsidiary soon outdid its parent. It released a Japan-only product, its first ever, that costs as little as \$660 without a monitor and \$840 packaged with a 15-inch display. Either price for the Dimension J400c, which is aimed at the SOHO (small office/home office) market, includes a 400-MHz Celeron processor along with the 810 chipset, 64 MB of SDRAM and 4.3 GB of storage. Fellow direct marketer GATEWAY 2000, INC. quickly met this challenge. It, too, broke the (yen) 100,000 pricing barrier for desktops with the \$885 GP6-400c. The specifications of this midtower machine parallel those of the Dimension J400c: a 400-MHz Celeron processor, a 440ZX chipset with AGP (accelerated graphics port) support, 64 MB of SRAM, a 4.3-GB hard drive and a 15- inch monitor. However, the price for the Gateway sys-tem also covers three months of Internet access.

GATEWAY 2000, INC.'s subsidiary also expanded its lineup of

affordable, small-form-factor PCs for businesses with the release of a new E-1400 model. Priced from \$850 without a monitor, this system comes with a 400-MHz Celeron processor that has 128 kilobytes of cache, 64 MB of internal memory and a 6.8-GB hard drive. It takes up less than half the space of traditional PCs. It is easy to service or upgrade because the mother-board, power supply and hard drive are removable.

At the same time that it goes after corporate buyers of desktop machines, GATEWAY 2000, INC.'s marketing unit is putting more emphasis on the notebook market. It has doubled the number of people providing support for users of its portable computers and allocated more money for advertising its notebooks. These moves coincided with several model launches. One was a version of the Solo 9300 that can be used for digital video editing. This product, which starts at less than \$2,700, offers a choice of a 400-MHz mobile Pentium II processor, a 366-MHz Celeron or its 400-MHz cousin. It features a 15-inch XGA active-matrix TFT color display and a high-speed IEEE 1394 serial bus. This Solo 9300 also can be equipped with a CD-rewritable drive. Gateway released as well three notebooks that include in their price one year of Internet access and some other free services - a marketing strategy that it has used to sell certain desktop models. A Solo 3100 portable with a 266-MHz Celeron chip lists at less than \$1,800, while the Solo 2500 Internet model, which uses a 333-MHz Celeron processor, goes for \$1,900. The third model, priced at \$2,500, is part of the Solo 9100 line. It uses a 333-MHz Pentium II processor.

The latest entry from DELL COMPUTER CORP. in the notebook sweepstakes is the Latitude CS-R400XT. A lightweight (4.3 pounds), thin (1.1 inches in height) system despite its 13.3-inch color display, this product is powered by a 400-MHz mobile Pentium II processor with AGP performance. The starting price of \$2,400 includes 64 MB of SDRAM and a 4.8-GB hard drive.

In a significant win for INTERGRAPH CORP., its subsidiary teamed with MEDIA 100 INC. to deliver Finish content-creation video systems to two schools offering digital media training and certification courses. The deals with Japan Electronics College and Digital Contents Academy 3Dplus, also located in Tokyo, included the installation of 16 of the Huntsville, Alabama manufacturer's TDZ 2000 Video Workstations for the Windows NT operating environment. Between them, JEC and 3Dplus are said to have the largest number of professional nonlinear editing systems of any Japanese school. Their classes are aimed at aspiring digital media engineers and creators.

NCR JAPAN, LTD., which has built a substantial business for itself by catering to the hardware and soft-ware requirements of nationwide retailers, has introduced a state-of-the-art, Japan-only system for chains that takes advantage of the Web. For stores themselves, the RPRO FSP Solution consists of NCR 7452POS (point of sale) machines and the NCR 7401 Web Kiosk Terminal. Ten of the POS systems cost \$132,700, while the terminal is priced from \$10,600. This equipment is **linked** to a **server** at the retailer's headquarters that costs \$79,600 and up. Over the next three years, NCR expects to sell 100 of the servers, plus 5,000 Web Kiosk Terminals and 30,000 POS machines.

IBM JAPAN LTD. signed an agreement with OMRON CORP. to supply it with automated teller machines on an original equipment manufacturer basis for sale in Asia outside Japan, South Korea and Taiwan. The computer giant will install its own software in the ATMs and also handle after-sale service. The five-year deal, which starts in October, could involve as many as 30,000 machines, giving a major boost to Omron's share of the world ATM market. IBM Japan anticipates strong demand for ATMs from financial institutions in the People's Republic of China and elsewhere in Asia in coming years.

The latest product from the marketing unit of enterprise storage systems world leader EMC CORP. is the Celerra File Server. This system combines Symmetrix Enterprise Storage technology with what the company says is a novel approach to software and hardware. In EMC's opinion, this marriage delivers unprecedented levels of availability, management,

scalability (up to 37 terabytes) and performance to network file storage. Key to the performance claim is software optimized for moving data. Moreover, a single Celerra File Server can simultaneously support mixed Unix and Windows NT environments. Operable over local networks, including Gigabit Ethernet, and wide area networks like the Inter-net, the network file server's pricing starts at \$765,500.

With two additions to the HP SureStore E on-line storage product family, HEWLETT-PACKARD JAPAN LTD. promises HP 9000 Enterprise Server customers that they can match their storage investments to the specific amount of disk space needed for a given application and add capacity as necessary. The HP SureStore E Disk Array FC60 is a native Fibre Channel RAID (redundant array of independent disks) array offering high availability, up to a terabyte of capacity and high-speed data transfer. Designed for large-scale, business-critical applications, it can be configured with four to 60 disks. The basic system costs \$61,700. For small to mid-size ISP and e-commerce applications and Unix file/ print operations, HP Japan is marketing the HP Sure-Store E Disk System SC10. It can be built with four to 10 Ultra2 SCSI disks with a top capacity of 182 GB per enclosure. The standard SC10 model lists for \$22,300. Between the two products, HP Japan expects to generate sales of \$35.4 million in the first year.

HEWLETT-PACKARD JAPAN LTD. also figures that over the coming year, its customers will buy 1,000 of its latest DAT (digital audio tape) system for backing up midsize networks. The HP SureStore DAT24eU, which is compatible with leading Unix and Windows NT servers and workstations, has a compressed data capacity of 24 GB per DDS-3 (digital data storage) cartridge and a sustained transfer rate of 7.2 GB an hour, again with hardware data compression. This particular model, which lists for \$2,100, comes with a SCSI cable and terminator as well as a power cable and a power supply.

ULTERA SYSTEMS INC., which bills itself as the leading manufacturer of RAID tape array controllers and subsystems for high-speed backup, archival and data acquisition applications, appointed MACNICA, INC. as its master distributor. The Laguna Hills, Cali- fornia company's product line, which is compatible with all industry-standard tape drives, tape libraries and storage management software, spans the name-indicative Striper, LibraryMaster, Imager and Shadow-Master Series.

Once again, INTERNATIONAL BUSINESS MA-CHINES CORP. has managed to pack a record amount of capacity into a notebook PC hard drive. The Travel-star 25GS, designed for the premium end of the market, holds 25.3 GB of data, four times as much as the average portable hard drive. Moreover, at 5,400 revolutions per minute, the drive tops the speed of any competitor's, adding to performance. The Travelstar 25GS will be used in IBM JAPAN LTD.'s high-end ThinkPads as well as in notebooks from other manufacturers. IMATION CORP.'s subsidiary is upbeat about prospects for its 120-MB SuperDisk USB external drive for both Macintosh machines and Windows PCs. It is forecasting sales of 5,000 SDD-120USB WM2Xs a month. The drive has an estimated street price of \$300. With the \$175 HP JetDirect 170X, small businesses with Windows machines can connect printers regard-less of make to their networks. The result, HEWLETT-PACKARD JAPAN LTD. says, is an output speed that is up to six times faster than with a file server or a shared PC connection. The company is projecting sales of 20,000 units a vear.

Color LCDs developed by COLORADO MICRO-DISPLAY, INC. that measure less than a half inch diagonally will be distributed to OEMs by SUMITOMO CORP., backstopped by the Boulder, Colorado company's new Tokyo sales and support office. Target applications for CMD's microdisplays, which reportedly can be produced at about one-fourth the cost of conventional displays with equivalent image quality, include head-sets for mobile computing, portable DVD players and wearable computers; viewfinders in digital cameras, camcorders and next-generation smart phones/Internet appliances; front and rear projection devices; and displays

for a variety of industrial products. Sumitomo is so convinced that the microdisplays will find a broad market that it is projecting annual sales on the order of \$35.4\$ million within two years.

A third Japanese electronics manufacturer has been licensed to use EASTMAN KODAK CO.'s innovative organic electroluminescence technology in passive monochrome and color flat-panel displays for a variety of applications. Like PIONEER CORP. and SANYO ELECTRIC CO., LTD., which also has an OEL development partnership with Kodak (see Japan-U.S. Business Report No. 354, March 1999, p. 17), TDK CORP. no doubt was attracted to the lower power consumption, faster response time, better brightness, unlimited viewing angle and thinner design of displays incorporating OEL technology compared with today's LCD displays. Kodak will collect royalties from TDK.

Three products from RARITAN COMPUTER INC., a manufacturer of switches that allow the control of multiple computers from a single keyboard, monitor and mouse, are now available in Japan. The Somerset, New Jersey company's entry-level line is the Compu-Switch, which can connect any combination of two, four or eight PCs, Macs and Suns using any operating sys-tem. For centrally running anywhere from two to 256 multiplatform computers, Raritan offers the MasterCon-sole II. Its MasterControl MX switch goes a step further, allowing up to four people to simultaneously control as many as 256 computers (PCs, Macs, Suns, Alphas, RS/ 6000s, HP 9000s and SGIs) each from one keyboard/ monitor/mouse. Regardless of the product, a Raritan switch eliminates the cost and the clutter of multiple peripherals, reduces equipment space and helps to improve operational efficiency in such places as data centers, Web server farms and customer service operations. Pricing ranges from \$480 to \$11,100.

The ultimate in consumer desktop entertainment is how 3DFX INTERACTIVE, INC. describes the possibilities opened up by the new Voodoo3 3500 TV AGP card. It combines powerful 3D and 2D graphics with complete TV tuner and multimedia functionality. NISSHO ELECTRONICS CORP., the San Jose, California company's distributor since April, has priced the card at \$335. It expects annual sales in excess of 20,000 units. 3dfx Interactive recently established a Tokyo marketing subsidiary (see Japan-U.S. Business Report No. 357, June 1999, p. 21).

CONSTRUCTION AND REAL ESTATE

Over time, the government's new private finance initiative should create business opportunities for U.S. engineering and construction companies. Already, civil engineering giant BECHTEL CORP. has agreed to work with big contractor TAISEI CORP. to win contracts for PFI projects and execute them. Under the private finance initiative, the public sector in Japan hopes to harness the resources, both financial and technical, of the private sector to build economic and social infrastructure. That could include anything from roads to incinerators. PFI is an attempt to get around the bottleneck to the implementation of public works programs caused by the inability of local governments to come up with their share of the money because of strained finances. With technical assistance from Houston's HORIZONTAL DRILLING INTERNATIONAL, INC., which specializes in the installation of pipelines, conduits and cables beneath rivers, highways and similar barriers, SUMITOMO METAL INDUSTRIES, LTD. and an affiliate developed an improved method of what is called horizontal directional drilling. This technology marries conventional road boring and the directional drilling used for oil wells. As the Pipeline Arc-Shaped SMI-DRIX name of SMI's technique suggests, the installation is arc-shaped. In simplified terms, it is achieved by drilling a pilot hole at a prescribed angle from horizontal and continuing it under the obstacle, then enlarg- ing the path with a reamer and finally pulling the pre-fabricated pipeline through. SMI estimates that its method not only cuts construction time but also reduces the cost of laying pipelines across barriers by 20 percent to 30 percent.

ELECTRIC MACHINERY

For such handheld scanning applications as retail point of sale and in-store inventory, distributor AINIX CORP. released WELCH ALLYN, INC.'s

IMAGETEAM 3800 bar code scanner. It uses linear imaging technology rather than more conventional CCD (charge-coupled device) or laser technology, combining a bright, sharp aiming line with high-resolution imaging to deliver what the Skaneateles Falls, New York manufacturer says is an exceptional reading performance. The IT3800, which operates from a tabletop holder in manual trigger mode or can be placed in an adjustable stand for automated operation, is priced from \$790.

BOSE CORP. is making a major push to boost sales of its home theater audio systems, hoping to lift them within the current fiscal year to 30 percent of revenues from 20 percent or so. One key to this strategy is to reduce delivery times from the Japanese factory to which the premium speaker maker has consigned assembly of the systems. Another part is to increase imports of components from the United States. Bose also has boosted its advertising budget. One of the first home theater systems to benefit from the new push is a setup designed to produce movie theater-quality sound from standard two-track videotapes. To do this, Bose uses a digital-processing chip able to automatically differentiate between voices and other sounds and divide them among five speakers. Including speakers and amplifiers, the new home theater system costs \$2, 200.

ENERGY RESOURCES

Japan's changing regulatory environment for electricity sales is starting to attract the interest of foreign companies that believe that they can undercut the high prices charged by the nation's 10 regional electric utilities. Since the start of 1996, independent power producers have been able to wholesale electricity to these former monopolies. Beginning next April, they also will be free to sell power directly to industrial users. TEXACO INC., for one, believes that these opportunities are worth exploring. It and KOA OIL CO., LTD. have agreed to study the feasibility of moving into the IPP business, including building power plants at Koa Oil's two refineries. Industry sources say that the two have their eye on sales to KANSAI ELECTRIC POWER CO., INC. and CHUBU ELECTRIC POWER CO., INC. If they do win contracts, the same insiders add, Texaco and Koa Oil will build a 500,000-kilowatt thermal power plant at the Japanese company's Marifu, Yamaguchi prefecture refinery as well as at the one in Osaka. They could be operational as soon as 2003. Using Texaco technology, these power-generating facilities could sell electricity for 20 percent to 30 percent less than what Japan's electric utilities charge. Texaco and Koa Oil have no time frame for reaching a decision. Until recently, the American oil major owned 25 percent of its prospective Japanese partner (see Japan-U.S. Business Report No. 359, August 1999, p. 18).

FINANCIAL SERVICES

CITIGROUP INC. and NIKKO SECURITIES CO., LTD. are offering consumers the convenience of one-stop shopping for financial services on an experimental basis. CITIBANK N.A. has taken over one floor of Nikko Securities' Gotanda office in the Shinagawa area of Tokyo, offering investment trusts (Japanese-style mutual funds) and money-management advice as well as regular banking services. The big brokerage house sells its own financial products on two other floors. This is the first tie-up between Citigroup and Nikko Securities on the retail side of the financial services business since the holding company became the top investor in the securities firm and the Japanese broker's investment banking and institutional trading operations were spun off into a joint venture with Citigroup's SALOMON SMITH BARNEY INC. (see Japan-U.S. Business Report No. 354, March 1999, p. 19).

Detailing its retail strategy for Japan, major investment bank/brokerage house MORGAN STANLEY DEAN WITTER & CO. said that it would use four channels to distribute financial products and services to individual investors. Before the start of 2000, the company will open a branch office, presumably in the Tokyo area, to offer clients investment trusts and other products. At this time, executives indicated, Morgan Stanley is not planning to acquire an existing retail brokerage network

like rival MERRILL LYNCH & CO., INC. did, although that option always is a possibility, the same insiders said. A tie-up with SANWA BANK, LTD. will provide a second distribution channel. Under this arrangement, the first Morgan Stanley has formed with a Japanese financial institution, the nationwide commercial bank will sell a number of the New York City firm's mutual funds at its branches starting this fall. The same products also might be available through four securities firms affiliated with Sanwa Bank. At several of the bank's branches, personnel from Morgan Stanley and Sanwa Bank will collaborate to get a better feel for exactly what types of money-management products are of greatest interest to individual Japanese investors and to try out various sales methods. The financial services provider also envisions similar deals with other Japanese financial institutions. These agreements will provide a third retail sales avenue. Finally, Morgan Stanley's on-line brokerage unit, DISCOVER BROKER-AGE DIRECT, INC., will offer Internet trading. The specifics of this move still need to be worked out, but the service probably will not be launched until the latter part of 2000, even though Japan will completely deregu- late brokerage commissions October 1. Moreover, according to current thinking, Morgan Stanley will not steeply discount its charges to attract customers to its on-line trading activities. Instead, it plans to depend on the quality and the breadth of its services to win business, including the ability of its customers to invest directly in all the world's major stock markets.

Any number of companies, foreign and domestic, are betting that, in time, on-line investing will become just as popular in Japan as it is in the United States.

However, some American financial services providers are content for now to take a minority position in one of the Internet trading start-ups rather than spearhead the projected revolution in Japanese retail investing. For instance, J.P. MORGAN & CO., INC. acquired a small stake in MONEX INC., an on-line brokerage formed last spring by SONY CORP. and a former investment banker. Through this venture, which expects to start operations in October, the New York City bank holding company hopes to find a market for its financial advisory services. J.P. Morgan already has extensive operations in Japan, including a tie-up with DAI-ICHI KANGYO BANK, LTD. in the asset-management field (see Japan-U.S. Business Report No. 355, April 1999, p. 18). Within five years, AMERICAN EXPRESS ASSET MANAGEMENT INTERNATIONAL (JAPAN) LTD. wants to be managing \$1 billion of assets for Japanese institutional investors. A primary means to this end is to offer financial products, particularly stock mutual funds, to the investment managers of corporate pension plans. Until now, AmEx Asset Management's main focus has been selling investment products to the more than 1.1 million AMERICAN EXPRESS CO. cardholders in Japan.

Setting the stage for its biggest move to date in Japan, the Tokyo District Court tentatively cleared the sale of bankrupt NIPPON ASSET MANAGEMENT INC.'s operations to GMAC COMMERCIAL MORT-GAGE CORP. The Tokyo company was established earlier this year after JAPAN LEASING CORP., formerly part of the now-nationalized LONG-TERM CREDIT BANK OF JAPAN, LTD., sold its equipment leasing business to GE CAPITAL CORP. (see Japan-U.S. Business Report No. 353, February 1999, pp. 16-17). The 150-employee Nippon Asset Management took over Japan Leasing's real estate and other assets. They have a book value of about \$8.8 billion. Once the court approves Nippon Asset Management's restructuring plan, which must be submitted by the end of November, GMACCM will be free to take over its businesses and employees. The second-largest nonbank financial concern in the United States has been one of the biggest buyers and securitizers of property-backed nonperforming loans in Japan.

Cleaning up another part of the mess caused by the bankruptcy of LONG-TERM CREDIT BANK OF JAPAN, LTD., the company trying to find a buyer for the bank, GOLDMAN, SACHS & CO., purchased part of the real estate-backed loan portfolio of failed NIPPON LANDIC CO., LTD., a LTCB nonbank affiliate. The loans bought by Goldman, Sachs have an estimated

book value of \$1.2 billion. They are expected to be securitized.
....Meanwhile, GOLDMAN, SACHS & CO. now is one of the 19 companies,
eight of them foreign-affiliated, that the Ministry of Justice has licensed
to serve as loan servicers. These companies are authorized to collect
payments on property-backed loans for the lenders or for the buyers of
nonperforming loan portfolios. They also can manage the underlying
collateral. That right extends to selling it to third parties. The new,
12-person Goldman, Sachs loan servicing unit is handling the loans and the
related properties acquired by its parent. GMAC COMMERCIAL MORTGAGE CORP.
and CERBERUS PARTNERS, L.P. are among the other American investors that
have their own loan-servicing units (see Japan-U.S. Business Report No.
356, May 1999, p. 19).

A new source of financing and managerial help will be available this fall for Internet-related start-ups. NETYEAR GROUP, INC. of Redwood City, California has opened a wholly owned subsidiary in Tokyo to scout out promising e-businesses to bankroll and get the ones that pass its test up and running. The money will come from Netyear Knowledge Capital Partners, which hopes to raise as much as some \$17.7 million. Netyear expects to invest in five Internet ventures with-in the first two months and then 10 to 20 companies a year. It will invest as much as \$442,500 in any one company, subject to a limit of half of the start-up's financing. Netyear was established by the holding company for Japan-based systems integrator INFORMATION SERVICES INTERNATIONAL-DENTSU, LTD., but it became independent in October 1998 through a management buyout.

In a decision aimed at expanding its core operation, AMERICAN EXPRESS CO. will unveil this fall a credit card designed specifically for small businesses. Available in the United States but now nowhere else in the world, the card will have a preapproved credit line of \$4,400 and will enable holders to receive discounts on a variety of goods and services, including office supplies, hotels, restaurants and car rentals. Amex's subsidiary will market the card to small businesses through direct mailings.

FOOD AND AGRICULTURAL PRODUCTS

The first T.G.I. Friday's restaurant with its American bistro menu has opened in Japan. Located in the Shibuya area of Tokyo near other popular U.S. brands, the casual dining restaurant has seating for 215 guests and will employ some 120 people. It is run by licensed franchisee T.G.I. FRIDAY'S JAPAN, INC., a joint venture between the Dallas company of the same name, which is a subsidiary of CARLSON RESTAURANTS WORLDWIDE INC., and WATAMI FOOD SYSTEMS CO., LTD. (see Japan-U.S. Business Report No. 352, January 1999, p. 16).

MERCHANDISING

Japan might be trapped in a nearly decadelong slump, but demand for fine jewelry and accessories apparently still is so strong that TIFFANY & CO. plans to inaugurate its 45th outlet in the country. The newest store, scheduled to open in early November, will be located in the Usui Department Store in Koriyama, Fukushima prefecture.

A LEVI STRAUSS & CO. trying to regain momentum in Japan is franchising its Original Levi's Store re-tailing concept. The first such outlet, which carries Levi's-brand jeans, shirts and the like targeted at teenagers and young adults, is located in the Harajuku section of Tokyo. In time, the San Francisco company could open franchise stores in Osaka and other major cities. Interestingly, none of the company's three directly owned stores are located in the capital. That could change, Levi Strauss says, if the franchised shop is a success.

NONELECTRIC MACHINERY

With the high-end SLA 7000 Production SolidImager from 3D SYSTEMS CORP. shipping (see Japan-U.S. Business Report No. 354, March 1999, p. 21), exclusive distributor INCS CORP. now can offer manufacturers of all sizes and budgets a solid imaging system that will enable them to quickly and cost-effectively make accurate, detailed parts and prototypes. The SLA Series includes four models, ranging from the entry-level SLA 250 through

the SLA 7000. With this lineup and the aggressive pricing strategy that it has adopted, Kawasaki, Kanagawa prefecture INCS, which also installs and services Valencia, California 3D Systems' equipment, hopes to sell 35 SLA Series machines in 1999 versus the 25 delivered last year.

DRYVAC ENVIRONMENTAL, INC., the developer of a dewatering technology for waste treatment and disposal, has licensed its technology to a Matsuto, Ishikawa prefecture company. The agreement gives the Japanese firm not only access to the Rio Vista, California company's technology but also allows it to manufacture the system. That could start as early as 2000, al-though the licensee first will import equipment for demonstration purposes. The DryVac filter-press know-how enables sludges and other products to be dried to 100 percent solids in conventional presses without any additional equipment. As a result, solid volumes and weights can be reduced by anywhere from 50 percent to 80 percent more than traditional processes for dewatering sludge in about the same time and at a competitive cost.

A new, high-efficiency gas turbine engine from ROLLS-ROYCE ALLISON, INC. (formerly Allison Engine Co.) that generates up to 10,400 kilowatts of power per hour has given HITACHI ZOSEN CORP. additional options for designing cogeneration systems. The Allison 601-K11 is the largest gas turbine marketed by the Japanese company, which also distributes the midrange Allison 601-K9 gas turbine for generator sets. Indianapolisheadquartered Rolls-Royce Allison says that both lightweight, modular products incorporate technological enhancements that improve performance, durability, reliability, cost and emissions.

PHOTO EQUIPMENT AND COPIERS

Seemingly determined to cover all price points and levels of sophistication in the **digital** camera market, EASTMAN KODAK CO.'s subsidiary is marketing a model for beginners that is 35 percent smaller than any other **digital** camera it has offered. The aluminum-encased DC215 Zoom **Digital** Camera features a 1-million-pixel CCD for crisp, vivid color pictures and a 2X wideangle zoom lens for close-ups. It also has a 1.8-inch color LCD that lets users preview and review pictures. Including a PC connection cable and image-processing software, the DC215 Zoom has an estimated street price of \$350.

PRECISION AND MEDICAL EQUIPMENT

Although details are scarce, CATAPULT COM-MUNICATIONS of Mountain View, California has made the first sale of its software-based test system for third-generation or wideband CDMA (codedivision multiple access) wireless protocol telephony products. The buyer is FUJITSU, LTD. 3G is a next-generation wireless technology that is expected to deliver wireless voice services with the same quality levels of wireline telephony. That capability will bring the speed and the capacity needed to support multimedia and high-speed data applications.

HEWLETT-PACKARD JAPAN LTD. has added a third model to the Infiniium line of oscilloscopes. The 1- GHz HP 54835A fills the gap between a 500-MHz model and a 1.5-GHz model and gives electronics firms designing digital circuitry in the 500-MHz to 1-GHz band-width range a lower-priced alternative to using the \$35,400 system for applications requiring 1.5 GHz of bandwidth. The new Infiniium product, which offers as many as four channels operating at 1 GHz and sampling rates up to 4 GSa/s, lists for \$25,300. With the expanded line, HP Japan expects to sell 1,000 Infiniium oscilloscopes a year.

An ultra-high-speed video recording system that can record up to 4,500 full frames per second or as many as 40,500 pictures per second in partial frame mode is on the market from EASTMAN KODAK CO.'s subsidiary. Developed by the company's San Diego, California Motion Analysis Systems Division, the KO-DAK EKTAPRO HS Motion Analyzer Model 4540 is de signed for the analysis of extremely rapid events, such as airbag deployment. Equipped with an electronic memory, the system can store a maximum of 5,120 full frames or a tops of 81,920 pictures for instant replay. Later, the stored images can be downloaded to standard videotape for future reference. Kodak

priced the motion analyzer from \$136,300.

The first product line introduced in Japan since EASTMAN KODAK CO. bought IMATION CORP.'s medical imaging business last December is the KODAK DRYVIEW family of laser imaging systems for medical films. The five models making up the line can be configured to print images directly from almost any imaging modality. Alternatively, the modality images can be converted to the DICOM format and sent over a net-work for fast, affordable printing. The KODAK DRY-VIEW Laser Imagers also automate the quality-control process.

In a further realignment of its business in Japan (see Japan-U.S. Business Report No. 359, August 1999, p. 22), the GE Medical Systems unit of GENERAL ELECTRIC CO. reportedly will give SUMITOMO HEAVY INDUSTRIES, LTD. the **rights** to make and market its compact, high-speed accelerators for positron emission tomography diagnostic imaging systems. SHI, which is a leading maker of accelerators, also will sell equipment supplied by GE Medical Systems for preparing agents that hospitals use for diagnostic imaging.

The pending Japanese partner anticipates that the arrangement will triple its PET-related sales to \$26.6 mil-lion a year. What effect the relationship with SHI will have on the business of GE-YOKOGAWA MEDICAL SYSTEMS, LTD., the marketer of GE Medical Systems' diagnostic equipment, is not clear.

THERMO CARDIOSYSTEMS INC. - the developer of the first FDA-approved implantable heart-assist system designed to allow heart-transplant candidates to return home while waiting for a donor heart - has given NISSHO CORP. marketing **rights** to the electric HeartMate left-ventricular-assist system. Now that surgeons in Japan have started to perform organ transplants, Nissho expects a market to develop for the Wo-burn, Massachusetts manufacturer's product. The big maker of medical consumables could begin clinical trials of the HeartMate before yearend. It aims to import and market it within a year or two.

The Health and Welfare Ministry cleared for commercial release MEDTRONIC, INC.'s GFX2 coronary stent system for use in the treatment of coronary artery disease. The product features several improvements over its predecessor, the GFX.MHW also approved for use SPINAL CONCEPTS, INC.'s titanium BacFix thoracolumbar spinal fixation system, which provides temporary stability to the thoracic, thoracolumbar or lumberspine from T1 to S1. The Austin, Texas company says that its system has several advantages over typical thoracolumbar spinal systems, headed by the elimination of any intraoperative assembly. KOTOBUKI IKA SHOJI CO., LTD., an Osaka-based distributor of ortho-pedic implants, will market BacFix.

Alameda, California-based INSITE VISION INC. gave exclusive manufacturing and marketing **rights** to its AquaSite sustained-release dry-eye treatment to SSP CO., LTD. The Tokyo pharmaceutical company expects production to begin by early 2000. InSite sees Japan as a key market for its particular area of expertise: genetically based glaucoma diagnostics and treatment.

The world's number-two provider of integrated dialysis services for people suffering from chronic kidney failure is moving into the Japanese market. As a first step, TOTAL RENAL CARE HOLDINGS, INC., which owns and operates freestanding kidney dialysis centers and home peritoneal dialysis programs across the United States as well as in some other countries and provides acute hemodialysis services to patients at some 330 hospitals, has set up a Tokyo subsidiary and initiated discussions with a number of hospitals about taking over their dialysis operations. More immediately, the Torrance, California company hopes by yearend to have two of its own dialysis centers functioning. Total Renal Care reportedly is the first foreign company to attempt to provide medical services in Japan.

A second American company has set its sights on Japan's domestically controlled syringe market, although the specific targets of the two differ. BAXTER INTERNATIONAL INC.'s subsidiary is going after 10 percent of sales of syringe pumps, which deliver precise amounts of infusions to patients. The Deerfield, Illinois company's initial entry is the Auto Syringe AS50

Infusion Pump. Able to deliver intravenous solutions, drug solutions and whole or packed red blood cells in neonatal, anesthesiology and critical-care situations, the pump accepts syringe sizes ranging from 1 milliliter to 60 mL. The AS50 costs \$3,500. For its part, BECTON DICKINSON AND CO. is trying to create a demand for prefillable syringes (see Japan-U.S. Business Report No. 359, August 1999, p. 22).

SEMICONDUCTORS

The world semiconductor industry has been in a constant state of flux over the last two years or so, with new production alliances being forged just as long-standing ones are dissolved. By the end of 2000, the latter category will include the Sendai, Miyagi prefecture wafer-fabrication venture between MOTOROLA INC. and TOSHIBA CORP. The big American chipmaker has agreed to buy out its equal partner in TOHOKU SEMICONDUCTOR CORP. on terms that were not disclosed. The company, now capitalized at \$44.2 million, was formed in 1987 primarily to give the two access to each other's technical strengths: DRAMs for Motorola and microprocessors and other logic devices for Toshiba. Memory production ended in 1997 after Motorola decided to exit the DRAM business. Since then, both of TSC's front ends have been used for logic products, which currently include microcontroller units, flash-embedded MCUs and DSPs (digital signal processors). Toshiba apparently decided that it had derived all the benefits from the manufacturing tie-up that it could achieve and initiated talks with Motorola about the future of TSC. After the firm becomes a wholly owned Motorola subsidiary, it will make Digital DNA embedded processors, which are used in consumer, networking and computing, transportation and wireless communications applications. Motorola says that none of Tohoku Semiconductor's 1,400-plus jobs will be lost. In fact, Motorola is in the process of integrating its Japan semiconductor operations in the Sendai area. About 60 percent of the 1,000 people who work for NIPPON MOTOROLA LTD.'s semiconductor division are being transferred there, including R&D staff. In a totally unrelated decision, Toshiba recently agreed to buy out IN-TERNATIONAL BUSINESS MACHINES CORP.'s half interest in a Virginia DRAM wafer manufacturing venture (see Japan-U.S. Business Report No. 359, August 1999, pp.8-9).

ON SEMICONDUCTOR, L.L.C., the world's largest maker of discrete, standard analog and standard logic semiconductor components, is the newest player in Japan's semiconductor market. The Phoenix, Arizona-headquartered company was formed in August when TEXAS PACIFIC GROUP bought part of MOTORO-LA INC.'s semiconductor business. ON Semiconductor is the trade name of SCG HOLDINGS CORP. Its new Tokyo sales, marketing and customer-support subsidiary goes by the name of SCG JAPAN LTD. Among ON Semiconductor's far-flung manufacturing locations is a wafer-fabrication complex in Aizu, Fukushima prefecture that Motorola opened in 1980 to make logic and memory products.

Four midsize American chipmakers also have moved into the Japanese market, all by tying up exclusively with NIHON DENKEI CO., LTD. This Tokyo company, a marketer of electronic measuring instruments, is representing: ANALOG MICROELECTRONICS, INC. of Santa Clara, California, which specializes in analog chips for measuring equipment; AUSTIN SEMICONDUCTOR, INC., an Austin, Texas supplier of high-reliability memory products and memory modules for the space and military industries; Sunnyvale, California-based CERMETEK MICROELECTRONICS, INC., which provides chips for modems; and neighbor IMPALA LINEAR CORP., a maker of DC/DC converters for mobile phones and other communications products. Nihon Denkei believes that each of the four company will have local sales of anywhere from \$885,000 to \$1.8 million the first year.

For its part, market newcomer DVDO, INC. named MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD. to distribute its line of video-processing ICs to manufacturers of **digital** TVs, projection systems and flat-panel displays. The Campbell, California firm's newest product, the DV101 Image Enhancement Engine, incorporates its PureProgressive video-enhancement technology. It will be the first DVDO chip that MEI handles. The part will

be marketed to makers of **digital** TV, LCD, plasma, DLP (**digital** light processing) and other progressively scanned display devices.

In conjunction with its stronger emphasis on Asian sales, RADISYS CORP., a supplier of Intel-based em-bedded chipsets, signed ASAHI ELECTRONICS CO., LTD. and OKAYA ELECTRONICS CORP. to market its products to OEM customers in the communications, industrial automation and other fields. Both companies already distribute INTEL CORP. processors and associated parts. Hillsboro, Oregon RadiSys has a subsidiary in Yokohama.

The fastest Pentium III processor that INTEL CORP. has developed is shipping to computer manufacturers in Japan as well as in the United States. The 600-MHz version of the chip is designed to deliver the full power and richness of the Internet to Web surfers as well as to enhance such business applications as e-commerce, data visualization, streaming audio, video and speech recognition. In the United States, the 600-MHz Pentium III with 512 KB of L2 cache costs \$670 each in quantities of 1,000 units. The high-end processor now is available in speeds of 450 MHz, 500 MHz, 550 MHz and 600 MHz.

In another worldwide release, INTEL CORP., which claims the title of the world's top maker of flash memories, announced the 3-Volt Intel StrataFlash with triple the read performance of its predecessor. The result of 0.25-micron processing technology, the part enables both code execution and data storage on a single, high-density 128-megabit chip. The 3-Volt Intel Strata-Flash also is said to offer the most storage in a NOR-type flash device. These capabilities give new design options to manufacturers of handheld devices, smart phones, PC companions, networking equipment, set-top boxes and other Internet-connected appliances. Volume shipments of 128-Mb 3-Volt Intel StrataFlash parts were set for September at U.S. prices of \$29.90 each in 1,000-unit quantities. In the first quarter of next year, Intel is scheduled to introduce 32-Mb and 64-Mb versions of the new part.

Users of SUN MICROSYSTEMS, INC.'s 3000 to 6500 Enterprise servers now can double the top factory-installed system memory of these Unix products, thanks to the 2-GB DRS702/2048 memory board from DATA-RAM CORP. The Princeton, New Jersey manufacturer selected COMPUTER DYNAMICS CORP. to market the \$14,800 product. The Tokyo distributor thinks that it can sell 1,000 boards a year to the substantial number of Sun installations in Japan.

SIRF TECHNOLOGY, INC. - a developer of chipsets that deliver the locational benefits of GPS (global positioning system) technology to wireless hand-held products, car navigation systems, PC-based plat-forms and consumer devices - has licensed its intellectual property to two more Japanese companies. NTT MOBILE COMMUNICATIONS NETWORK, INC. will integrate the Santa Clara, California company's just-announced SiRFLoc know-how into its DoCoMo

Location Platform. SiRFLoc is a platform-specific technology that improves GPS location capabilities in wire-less systems. At the same time, AISIN AW CO., LTD. incorporated SiRF's GPS architecture into its line of car navigation systems.

In another design win for an American company, the PM-44+ iDSP from OAK TECHNOLOGY, INC. is the imaging solution for select scanners and digital copiers introduced by FUJITSU, LTD. and HITACHI KOKI
CO., LTD. Fujitsu integrated the Andover, Massachusetts company's part into its M3090 series of departmental and production scanners, while Hitachi Koki used the chip in its DDS32 digital copier, the company's first such product. Oak Technology's iDSP family is said to represent the only line of DSPs designed specifically for digital imaging equipment. It combines high image-processing throughput rates with the flexibility of a programmable DSP architecture.

HEWLETT-PACKARD JAPAN LTD. named MACNICA, INC. to distribute a pair of CMOS color image sensors with **digital** output and timing controller for such applications as PC cameras, **digital** still cameras and surveillance and security video cameras. The difference between

the two sensors is the array size: 640×480 (the HDCS-2000) or 352×288 (the HDCS-1000). Both are said to offer excellent image quality with low power consumption.

With technical input from SONY CORP., the promoter of the Direct Stream **Digital** format for Super Audio CD players, BURR-BROWN CORP. developed the DSD1700. It is the Tucson, Arizona manufacturer's first DSD audio **digital**-to-analog converter. In combination with Sony's DSD decoder, the part will deliver the high performance and the sound quality that DSD technology promises. Sampling of the DSD1700 will start later this year. It is targeted to be priced at \$14.50 per unit in quantities of 100.

In a somewhat surprising move, AMERICAN MI-CROSYSTEMS, INC., a Pocatello, Idaho supplier of mixed-signal ASICs (application-specific ICs) and other semicustom mixed-signal devices, outsourced assembly and testing of certain plastic-packaged parts to FUJI-TSU VLSI, LTD. The deal marks the first time that the wholly owned FUJITSU, LTD. company has won a contract from a company outside the Fujitsu Group. Fujitsu VLSI will handle back-end processes for roughly 10,000 AMI chips a month at its facility in Gifu prefecture. AMI, a JAPAN ENERGY CORP. company, will do final inspection.

Under an arrangement that will expand the availability of TESSERA INC.'s chip-scale packaging, especially in Japan, the San Jose, California company licensed its Micro BGA (ball-grid array) technology to NORTH CORP. The agreement specifically covers the Tessera Compliant Mounting Tape technology, which is used in the assembly of Micro BGA packages. North will provide the tape to Tessera contract assembly licensees that make the package.

Effective September 1, the complete product portfolio of the Eaton Semiconductor Equipment Operations unit of EATON CORP. Will be represented in Japan by SUMITOMO HEAVY INDUSTRIES, LTD. Last April, Beverly, Massachusetts-based Eaton Semiconductor gave SHI the job of selling, distributing, servicing and supporting its thermal processing equipment line. Now, it has transferred responsibility for sales and support of its resist-strip and photostabilization equipment to SHI from TOKYO ELECTRON LTD. This centralization is a natural extension of the 15-year, Toyo, Nagasaki prefecture- based production and marketing joint venture between Eaton Semiconductor and Sumitomo Heavy Industries on the Eaton Nova line of ion implantation equipment.

APPLIED MATERIALS, INC., the world's largest supplier of wafer fabrication systems, has introduced two more products in Japan. One is the SiNgen Centura, a single-wafer, low-pressure chemical vapor deposition system for depositing critical silicon nitride film layers in the transistor structures of 0.18-micron and smaller devices. The Santa Clara, California manufacturer notes that SiN films have an increasingly significant impact on chip performance as line geometries move below 0.18 micron. The \$2.7 million or so SiNgen Centura combines Applied Materials' production-proven, single- wafer xz chamber technology and Centura platform with a state-of-the-art nitride deposition system. The second new product is the Mirra chemical mechanical polishing system with its throughput of more than 50 wafers an hour. The Mirra, which also costs about \$2.7 million, features the Titan Head wafer-polishing carrier. It rotates the wafer during the polishing process and, according to Applied Materials, provides uniformity and repeatability among wafers. The other strength of the Mirra, the company says, is technology that detects film thickness changes during polishing. This capability allows the user to precisely define material removal and, thus, the process endpoint.

SOFTWARE AND INFORMATION SERVICES

With forecasts showing that half of all Web surfers in Japan will be women by 2003, WOMEN.COM NETWORKS, INC. hopes to mine this potentially rich market. Already the top Internet destination for women in the United States, the San Mateo, California company has teamed up with MITSUI COMTEK CORP. to translate existing Women.com content into Japanese for uploading under license to the Living Ladies Community site run

by SANKEI LIVING SHIMBUN INC. The combination offers Japanese women the depth of Women. com's coverage of women's issues and the local perspective of Sankei Living and Mitsui Comtek through their contributions of unique material.

Even before the launch of its Internet store for new cars and light trucks (see Japan-U.S. Business Report No. 358, July 1999, p. 25), AUTOBYTEL.COM INC.'s subsidiary has formed a partnership with RECRUIT CO., LTD., AUCNET INC. and GULLIVER INTERNA-TIONAL CORP. in preparation for selling used vehicles on-line. The virtual used-car lot is expected to open in spring 2000; new car sales will start in November. Buyers will complete an on-line form detailing exactly what they are looking for in a used vehicle. The Autobytel operation then will forward the request to the participating dealer closest to the customer, who will be contacted by e-mail.

Hoping to tap the bargain-hunting side of Japanese Web surfers as well as their pocketbooks, EBAY INC. has signed a deal with NTT-ME INFORMATION XING, INC. to provide access to its on-line auction system via the NIPPON TELEGRAPH AND TELE-PHONE CORP. subsidiary's Goo Web portal. Goo al-ready attracts 10 million page hits a day, making it the number-two portal in Japan. NTT-X expects access to San Jose, California-based eBay's auction system to boost this number. This is eBay's initial entry into the Japanese market.

To support the rapidly expanding volume of on-line commerce, makers of back-end payment systems are showering the market with new products. For example, ECHARGE CORP. has opened a wholly owned subsidiary in Tokyo to sell and support its no credit-card settlement system. eCHARGE adds on-line shop-ping charges to existing monthly bills, such as for telephone service. Officials of the Seattle company claim that their system reduces the chance of credit-card information falling into the wrong hands, a marketing thrust that should play well with Japanese consumers. The eCHARGE subsidiary plans to sign business alliances with operators of virtual shops and malls, including NIPPON TELEGRAPH AND TELEPHONE CORP. The world leader in back-end e-commerce services, CYBERCASH, INC., is not taking it easy. It has added MITSUI & CO., LTD. to the list of 11 Japanese firms backing its technology and Tokyo-based subsidiary. The trading company invested \$1.3 million in the CyberCash affiliate for a 10 percent stake. It ranks as the third-largest investor in the operation, which was formed in April 1997, after the Reston, Virginia company's parent (40 percent) and SOFTBANK CORP. (16 percent). Mitsui will help CyberCash market its real-time credit-card payment processing services.

A third pair in this market segment - HEWLETT-PACKARD JAPAN LTD. and NEC CORP. - has finished codeveloping a virtual point-of-sale program and launched a combined marketing effort (see Japan-U.S. Business Report No. 354, March 1999, p. 24). vPOS 4.5J is written entirely in Japanese. It can handle a wide variety of demands, everything from single stores (\$5,400) to unlimited on-line Internet malls (\$31,600). Together, HP Japan and NEC expect to sell 200 copies of the package in the first year. VERIFONE, INC., a HEWLETT-PACKARD CO. company, is the originator of vPOS.

VALUECLICK INC., the pioneer in pay-per-click Internet advertising, is so pleased with its nascent Japa- nese sales initiative that it has taken ownership control of its 15-month-old joint venture and plans further international expansion. While upping its stake in the subsidiary to 54 percent from 32 percent by buying shares from JAFCO CO., LTD., the Carpinteria, California company retained its marketing partnership with TRANS PACIFIC LTD. (see Japan-U.S. Business Report No. 348, September 1998, p. 16). ValueClick's Japanese unit hopes to target Web site operators in other Asian countries, offering localized, turnkey Internet advertising solutions.

Irvine, California-based WEBZTER CORP. has similar Asia-focused expansion plans. The high-end Web site/e-commerce developer has opened offices in Tokyo as well as in Hong Kong and Singapore. The Tokyo facility, which also will service South Korea, plans to sell a full line of Internet

consulting services. These range from corporate reengineering for Internet-based operations and Internet media buying programs to Web site design and development.

To boost sales and use of its MP3-based on-line music distribution and play software, LIQUID AUDIO, INC. licensed its know-how free of charge to MITSUBI-SHI ELECTRIC CORP., SANYO ELECTRIC CO., LTD. and TOSHIBA CORP. for incorporation into their portable **digital** music players. The Redwood City, California firm's SP3 program handles the downloading of music from the Web while preventing illegal copying of protected **digital** works. Liquid Audio moved into the Japanese market last September (see Japan-U.S. Business Report No. 349, October 1998, p. 22).

A global leader in engineering know-how, ENGI-NEERING INFORMATION INC., plans a fully localized version of its award-winning Internet site for architectural and construction services. Japanese engineers will have access from their desktop to a huge pool of archived and current information, including Ei's Compen-dexWeb engineering data base, 40 other engineering-related data bases, 30,000 relevant Web sites, patent and standards information, current product catalogs and the full texts of engineering journals and articles deliverable via Internet fax. The Japanese version of Engineering In-formation Village will go live in October.

Westport, Connecticut-based INTERNET.COM CORP. has brought its information resources for the Internet industry and Internet technology professionals to Japan. With the help of Tokyo's COMMUNICATION ONLINE INC., internet.com launched the japan.internet.com Web site. It provides entirely in Japanese the latest news and editorial content on the rapidly evolving Internet business. The partners hope to attract local advertising yen by offering space on the site's 45 e-mail newsletters, 55 on-line discussion forums and 52 moderated e-mail discussion lists.

The subsidiary of Internet hardware giant CISCO SYSTEMS, INC. has completed shifting all its customer support services to the Internet. The SmartNet service provides periodic software upgrades and 24x7 remote troubleshooting to purchasers of Cisco's switches and routers. The service goal is to diagnose problems within one day of receiving a request and then, if needed, to dispatch support personnel from one of the more than 100 Japanese companies with which Cisco works.

Software developed by CENTRA SOFTWARE, INC. that powers on-line learning and business collaboration is now available from MACNICA, INC. The Lexington, Massachusetts firm's Centra 99 is used by more than 150,000 companies worldwide. It has become the de facto standard for conducting business-to-business events over the Internet. Tokyo-based Macnica not only is selling Centra 99 but also offers after-sale support, training and localization services.

With the explosion of local interest in getting information on-line, STARBURST SOFTWARE has tied up with HITACHI INFORMATION TECHNOLOGY CO., LTD. to offer a complete content-distribution solution. The Concord, Massachusetts firm and the HITA-CHI, LTD. subsidiary will market, sell and support StarBurst Software's OmniCast product, which can simultaneously broadcast content via the Internet to thou-sands of recipients. Moreover, because it works seamlessly with existing intranets/extranets, OmniCast is simple to install, integrate and operate.

The booming Japanese market for handheld, Inter-net- capable communication devices also is attracting more foreign interest. For instance, SPYGLASS INC. licensed its Internet content-delivery platform for hand-helds to SEIKO EPSON CORP. for use in a new generation of cellular telephones. The Naperville, Illinois firm's SpyglassPrism proxy server not only provides a full range of telephone functions but also includes a Web browser, information directory, a road map data base and other personal information services. Spyglass-Prism automatically identifies the device requesting in-formation, then dynamically reformats the desired con-tent to fit the handheld's small screen.

Following its acquisition of PROXINET, INC. of Emeryville, California, PUMA TECHNOLOGY, INC. is offering a competing product but one with a slightly different thrust. By combining its Intellisync synchronization package with ProxiNet's proxy-based data and content transformation software, Puma Technology's package reformats information on the fly for small handheld devices, just like SpyglassPrism. Intellisync, however, automatically and efficiently ensures that data files stored on remote servers and on the personal device are identical. The subsidiary of San Jose, California Puma Technology is marketing the integrated product. With the broader market for intelligent TV-related devices in mind, ORACLE CORP.'s local arm is offering Liberate Connect ISP Suite 1.5J. Licensed from Red-wood Shores, California-based LIBERATE TECHNOL-OGIES (see Japan-U.S. Business Report No. 357, June 1999, p. 11), the package helps ISPs manage the deployment and the support of set-top boxes, game consoles, Internet TVs and embedded Internet devices. For prices starting at \$153,100 for 500 users, the software allows ISPs to deliver value-added services to customers using existing network architectures and front-end/back-end software. As a companion, Oracle's subsidiary is selling Liberate TV Card SDK 1.1J, a \$15,900 software development kit for the network interface card.

IBM JAPAN LTD. has rolled out a new version of its popular talking Web browser, Home Page Reader. The \$130 Japanese-language package reads Web pages aloud as they are downloaded, enabling visually challenged people to surf the Internet without special equipment. The latest edition includes a headline reader, fast-forward and jump-forward commands and full support for sending and receiving e-mail.

Targeting the large number of Japanese firms that want to contract out their e-mail system needs, CRITI-CAL PATH, INC. has teamed with MITSUI & CO., LTD. The trader will localize and exclusively market the San Francisco company's contract e-mail services, which run from the very basic to the highly customized. INFORMATION RESOURCE ENGINEERING, INC. announced that NOMURA RESEARCH INSTI-TUTE, LTD. has bought more of its secure business communications software and services. IRE provided its SafeNet/Trusted Services VPN (virtual private net-work) package for NRI's secure extranet system, which connects more than 13 brokerage houses for electronic trading communications. Since last year, NRI has protected its intranet with IRE's SafeNet/Security Center VPN software. The Baltimore company provides a complete solution, including design, implementation, operation and technical support.

ENCOMMERCE, INC.'s recently established subsidiary added NETONE SYSTEMS CO., LTD. as its third marketing partner (see Japan-U.S. Business Report No. 357, June 1999, p. 24). Demand for enCommerce's getAccess Web portal access-management software has been stronger than expected, leading the Santa Clara, California firm to bolster its marketing team. The package allows administrators to discourage unauthorized Web browsing and adds another layer of security.

WATCHGUARD TECHNOLOGIES, INC. is finding a ready market in Japan for its Internet broadcast security products. On the heels of landing a contract from INTERNET INITIATIVE JAPAN INC. (see Japan-U.S. Business Report No. 359, August 1999, p. 27), the Seattle business announced that SOFTBANK CORP. and FUJI XEROX CO., LTD. would join its family of distributors. The WatchGuard LiveSecurity System takes a comprehensive approach to protecting networks and transmitted information, including a firewall/VPN module (WatchGuard Security Suite), a centralized management tool (WatchGuard Policy Manager) and an automatic network threat/antivirus update service (WatchGuard LiveSecurity Broadcast Service).

Two new authentication packages are on the market from SECURITY DYNAMICS TECHNOLOGIES, INC.'s subsidiary for its SecurID system. Token 2.0, which costs \$355 for a 10-user license, generates single-use passwords to verify users while a network is being serviced or upgraded. That capability provides secure access during a period when normal protections may not be operating. For its part, ACE/Server 4.0 controls access to networked

applications by authenticating users. A 25-user license for this program is \$6,400. With just weeks to go before January 1, 2000 arrives, MICROSOFT CORP.'s subsidiary released a Japanese- language version of the dominant PC operating system. Windows 98 Second Edition not only includes greater integration of Internet functions (Internet Explorer 5.0) and multimedia tools (Windows Media Player) but also readies PCs for the date rollover to the new millennium. A full version lists for \$220, while an upgrade from earlier versions of Windows is likely to go for \$120. Users of the original edition of Windows 98 need only pay about \$9.00 for a CD-ROM of the up-grade.

HEWLETT-PACKARD JAPAN LTD. is giving users of its Internet Advisor protocol analyzer that have purchased service contracts a free piece of software to detect Year 2000 issues in their HP equipment. Y2K Commentator analyzes user data and user-defined protocols in real time, looking for potential problems that might develop when 2000 starts. The package not only detects potential issues but offers repair recommendations.

Software developed by BASIS TECHNOLOGY CORP. has allowed LYCOS, INC. to fully localize its Japanese Web portal with a minimum of time and effort. The Cambridge, Massachusetts firm's Rosette C++-class library for UNICODE gives most C++ software packages the ability to handle multiple languages. Lycos not only employs Rosette to make Japanese the default language of its Japan Web presence, but the Inter-net portal operator also uses it to localize its products for the Korean and Chinese markets. Basis Technology is showcasing its work with Lycos to attract other Asian-minded Internet and software companies.

The insatiable demand for information infrastructure management solutions that can deal with mixed networks of legacy and new hardware and software has led INTEL CORP. to expand distribution and service capabilities for its LANDesk products. CORE CORP., a software value-added reseller, will coordinate the recruitment of what are called deployment VARs. These companies provide customers with a network of trained regional and national technicians experienced in deploying LANDesk products. Core also will sell Intel's family of network analysis and management tools and provide front-line customer service. LANDesk helps customers plan the development and the evolution of their heterogeneous networks as well as handling management functions.

SECURE COMPUTING CORP. of San Jose, California chose NETONE SYSTEMS CO., LTD. to distrib— ute the latest version of its network firewall software. Sidewinder 4.1 takes advantage of advances in processor speeds and architectures, reducing the potential for the firewall to become a bottleneck to network traffic. NetOne Systems priced the package at \$8,700. It hopes to sell 300 packages the first year.

With the takeover of Dallas-based ABIRNET, LTD. finalized, COMPUTER ASSOCIATES INTERNA-TIONAL, INC.'s subsidiary rolled out the latest version of Abirnet's network surveillance and intrusion detection package. SessionWall-3v1 Release 4 provides reports on network usage, content scanning, intrusion detections, blocking, alerting and logging. It also can monitor and enforce Internet access according to company- set policies and scan the content of e-mail messages to develop a data base to defend against future litigation. Available through FORVAL CREATIVE, INC., the new SessionWall-3 is priced from \$2,700 for a 25- user license to \$26,500 for an unlimited license. Similarly, PICTURETEL CORP.'s marketing unit introduced a package developed by a 1998 acquisition. The StarWorks multimedia streaming package for net-works is a product of PictureTel subsidiary STAR-LIGHT NETWORKS, INC. of Mountain View, California. For \$151,300, StarWorks provides a complete set of tools that allow network managers to create and distribute streaming media services, such as videoconferencing, live and interactive multicasting and video on demand. Racing to beat competing products from MICROSOFT CORP., the subsidiary of collaboration leader NOVELL, INC. released a localized version of its GroupWise 5.5 messaging server software. The package not only handles e-mail, appointment data and other types of messages,

but it offers many document management capabilities as well. GroupWise has client packages for PCs running under any version of Windows as well as the Mac OS.

With Japanese executives taking a harder look at how assets contribute to the bottom line, GLOBETROTTER SOFTWARE, INC. is offering a product that improves the return on investments in software. The San Jose, California company's SAMsuite 3.0 provides a central control console to manage software usage over large and complex networks. It also generates software licensing fee data, usage reports, bill-back and other data that can help companies make the most of their software budgets. GLOBEtrotter tapped SOFTWARE RESEARCH ASSOCIATES, INC. to handle the soft-ware asset management package. Pricing starts at \$22,100 for a single site license, plus \$3,200 for an annual maintenance contract.

IBM JAPAN LTD. has bolstered its menu of enterprise application integration products by adding ENTERPRISELINK TECHNOLOGY CORP. to its Vendor Logo Product program. The Campbell, California firm and ITOCHU TECHNO-SCIENCE CORP., its marketing partner since March 1998, now can use IBM Japan's huge sales network to promote SmartTran eBusiness EAI solutions. SmartTran already has been deployed by such corporations as DAI-ICHI KANGYO BANK, LTD., NIPPON TELEGRAPH AND TELEPHONE CORP., SHARP CORP. and YASUDA LIFE INSURANCE CO. for internal purchasing networks and currency trading systems.

A competing EAI product from NEW ERA OF NETWORKS, INC. has been selected by SUMITOMO BANK, LTD. to complete the first phase of its Global Information System initiative. The bank will use the Englewood, Colorado firm's NEONet software to enable its applications and data bases to exchange information seamlessly, reducing the cost of its international banking operations. NEONet has been deployed by other top Japanese banks for similar reasons (see Japan-U.S. Business Report No. 349, October 1998, p. 24).

The Japanese unit of ANDERSEN CONSULTING LLP has crafted an enterprise resource planning pack-age that meets the special needs of local governments. With many municipal budgets in the red, authorities are desperate to wring efficiencies from their operations and control their budgets. Andersen Consulting's ERP solution is based on PEOPLESOFT, INC.'s PeopleSoft 7.5 package. The consultant hopes to sign up at least 50 local governments to use its software and services by 2002.

In a powerful pairing, the subsidiaries of STRUC-TURAL DYNAMICS RESEARCH CORP. - the developer of the I-DEAS computer-aided design, manufacturing and engineering package and the Metaphase Enterprise product development management software - and HEWLETT-PACKARD CO. have formed a partnership targeted at the PDM market. They will open a Metaphase Solution Center at SDRC's Tokyo offices that is staffed by employees from both companies with expertise in supporting information management requirements. The center initially will focus on the needs of automotive and electronics customers of SDRC and HP, including their supply chains, offering these manufacturers turnkey PDM solutions that address their business objectives. SDRC, which reportedly controls nearly half of the world PDM market, and HP plan to extend their collaboration in Japan to Europe and even the United States.

To kick-start sales of its newest sales force automation package, SIEBEL SYSTEMS, INC.'s subsidiary will double its work force to 60 by the end of this year. The Menlo Park, California company hopes that this expansion will help to push sales of its Siebel 99.5 SFA package and other products to \$106.2 million in 2000 from a projected 1999 total of \$31 million. Part of this forecast depends on solid sales of a scaled-down version of Siebel 99.5 aimed at companies with less than 100 sales representatives. Both this version and the full-blown one designed for major corporations feature improved e-commerce functions.

Through its subsidiary, TIVOLI SYSTEMS INC. has rolled out a localized update of its customer assistance administration package. Priced

from \$41,200, Tivoli Service Desk 5.0.2J allows network managers to provide comprehensive help and other services with distributed resources following centralized policy guidelines. Integrating problem management, asset management and change management modules, the solution tracks customer interactions from start to finish. It uses artificial intelligence to bring the proper resources to bear on customer issues.

SAS INSTITUTE INC. has developed a data ware-house solution specifically for clinical test data. The PH.DataWare package, which its subsidiary has priced at \$66,400, includes PH.Study Manager to apply the clinical study format to warehoused information and to document how data are handled and transformed. Other components are: PH.Documenter to publish the out-put of PH.Study Manager to an intranet or a document management system; PH.DataPilot to handle complex dependencies to update accurately tables and batch processes; PH.MetaBuilder to provide hooks to external programs for automatically downloading data or meta-data; and PH.Interfaces to act as a gateway between PH.MetaBuilder and other clinical data management systems. The Cary, North Carolina company's marketing unit believes that it can sell 20 copies of the PH.DataWare package annually.

Market newcomer CAPTIVA SOFTWARE CORP., the leading supplier of forms-processing and document- capture products, has named NISSHO ELEC-TRONICS CORP. as its exclusive distributor. The San Diego, California developer simultaneously released Japanese versions of FormWare and Genesis. Captiva Software is convinced that it is moving into the Japanese market at the right time since domestic firms are interested in automating the now slow and costly manual collection of forms-based information but the availability of forms-processing and document-capture soft-ware is very limited. FormWare handles this task at the enterprise level, while Genesis offers a streamlined feature set for desktop users.

Financial analysis software developed by SS&C TECHNOLOGIES, INC. will power FUJITSU, LTD.'s attempt to enter the market for integrating and configuring investment management decision systems. Fujitsu will modify the Windsor, Connecticut firm's CAMRA 2000 and Antares 2000 packages to suit Japanese trading practices. Starting in December, it will target its sales pitch to investment advisers, insurance providers and trust banks. Fujitsu expects to price packages incorporating both software and services from \$442,500. The company hopes to land 30 customers within three years. Broadcasting and entertainment businesses in Japan no doubt will be interested in a new enterprise-strength, 3D, digital video software package from C-3D **DIGITAL**, INC. The Salt Lake City, Utah company signed an agreement with SOFTWARE TOO CORP. to distribute its complete line of Strata 3D and DV products, which allow broadcasters to deliver 3D entertain- ment to any standard television by converting two-dimensional films in real time. C-3D **Digital** already is in the programming end of the Japanese market through an arrangement with a company to broadcast its 3D content to premium TV subscribers (see Japan-U. S. Business Report No. 357, June 1999, p. 31). Creating clear, informative business diagrams is the purpose of VISIO CORP.'s upgraded eponymous software. The four editions of Visio 2000 - Standard, Technical, Professional and Enterprise - integrate closely with MICROSOFT CORP.'s Office suite, making it easy to add Visio diagrams to any Microsoft Office document. The Visio 2000 family also is Web-enabled. That allows users to share diagrams over the Internet/ intranet. It also supports Japanese phonetic alphabets and characters. Available through the Seattle company's subsidiary, the localized version of Visio 2000 Standard Edition is priced from \$120 to \$265.

WOLRFRAM RESEARCH, INC. released the latest version of its popular Mathematica technical computing package through SUMISHO ELECTRONICS CO., LTD. Mathematica 4 grinds through complex mathematical formulas up to 10 times faster than its predecessor, requires half as much memory and is fully localized for Japan. Sumisho Electronics is promoting the new version of the Champaign, Illinois developer's product by initially offering it at

the same price (\$3,200) as the last release. It is eyeing first-year Mathematica 4 sales of 1,700 copies. To date, educational and research organizations have purchased annually some 1,500 copies of earlier Mathematica releases.

Translated versions of two popular MICROSOFT CORP. PC games will be available before the end of 1999. Age of Empires II: The Age of Kings is a strategy simulation that spans the millennium between the fall of Rome and the end of the Middle Ages. Players can choose from 13 cultures to rule and command. Flight Simulator 2000 provides a broader range of simulated aircraft and more realistic graphics.

New on the market from ADOBE SYSTEMS, INC.'s subsidiary is the latest localized version of the industry- standard PhotoShop image-editing program.

Version 5.5 integrates tools to create high-quality images for print or for the Web, reducing the need for other software and providing a unified creative environment for both types of media.Separately, ADOBE SYS-TEMS, INC.'s Tokyo marketing unit linked up with MORISAWA & CO., LTD. to support the Osaka firm's Font NewCID software for embedding, displaying and printing Japanese outline fonts. Morisawa's product is compatible with Adobe's Acrobat 4.0, which is widely used to create documents that can be displayed regard-less of hardware and software differences.

Through its subsidiary, STRUCTURAL DYNAM-ICS RESEARCH CORP. is offering updated CAD products targeted at both the high of the market and the middle. Gateways that allow the pair of 3D CAD products to collaborate with other software packages have been added to make them integral parts of supply chain management solutions. The two also have been Web-enabled for the Internet and corporate intranets. I-DEAS Master Series, Release 7, which starts at \$12,400, and I-DEAS Artisan Series, Release 4, are available through INFORMATION SERVICES INTERNATIONAL-DENTSU, LTD., SDRC's longtime distributor. ISID is projecting combined sales of the two packages at 1,200 copies a year.

Palo Alto, California-headquartered ECHELON CORP. has teamed with YOKOGAWA ELECTRIC CORP. to promote worldwide the use of its LonWorks open-standards manufacturing control software. YOKOGAWA M&C CORP. will develop a full line of Lon-Works- compatible sensors, actuators and controllers, which its parent then will integrate and deploy in its manufacturing execution integration services. The Yokogawa Group hopes to generate \$88.5 million in Lon-Works- related sales over the next five years. As part of the arrangement, Yokogawa Electric joined the Lon-Mark Interoperability Association as a sponsor, the first Japanese company to join at this top membership level. However, a number of Japanese firms are authorized integrators of Echelon's facilities control network soft-ware and hardware (see Japan-U.S. Business Report No. 355, April 1999, p. 32).

At an undisclosed price, MENTOR GRAPHICS CORP. and distributor ITOCHU TECHNO-SCIENCE CORP. have completed delivery and installation of a new hardware simulator system at multiple MITSUBI-SHI ELECTRIC CORP. sites. The giant electronics maker will use Mentor's Celaro hardware emulator to develop its next generation of large-scale system-on-a-chip designs. It anticipates that Celaro's established architecture will reduce verification time from weeks to days and also cut design cost on a scale of million of dollars per project.

Electronic design automation software developer ALDEC, INC. has tapped ASSETCORE TECHNOLO-GY K.K. and ZYCAD TSS K.K., both of Yokohama, to distribute and support the three configurations of its Active-HDL tools. The Henderson, Nevada company's Active-HDL 3.6 VHDL tools are used to design field-programmable gate arrays. They are priced from \$4,800 (Standard Edition) to \$19,900 (Expert Edition).

A new signal-processing EDA tool for next-generation cellular phones, digital cameras and high-definition TVs is available from CADENCE DESIGN SYS-TEMS, INC.'s subsidiary. Cierto automatically converts specification and design data into standard circuit-design languages,

completing in a few hours a task that takes weeks manually. The program also has modules that simplify the design of wideband CDMA cell phones and MPEG-2 decoders. Cierto pricing begins at \$99,600.

Japanese makers of high-end consumer electronics products will receive a new product pitch from VERI-BEST, INC. and exclusive marketing partner CADIX INC. (see Japan-U.S. Business Report No. 355, April 1999, p. 31). They have taken the Boulder, Colorado firm's high-speed, high-density Expedition PCB (printed circuit board) design package and modified it to meet the special needs of local customers. Expedition's ability to shorten the design process, VeriBest and CADIX believe, can help manufacturers keep up with rapid changes in the consumer electronics market.

In what no doubt will give a boost to communications software developer TCSI CORP.'s Japan marketing efforts, the Alameda, California firm and NIPPON TELEGRAPH AND TELEPHONE CORP. have completed installation of an ATM (asynchronous transfer mode) control network for an unnamed government agency. Using TCSI's SolutionCore communications applications platform, NTT developed a highly scalable, robust ATM network management system in just six months. The SolutionCore variant, codenamed Champion V3R2, manages a broadband network composed of a fabric of ATM switches from several vendors.

TELECOMMUNICATIONS

Internet and data communications traffic is straining capacity all along the network, including what is called the backhaul segment. A company to be formed by PACIFIC GATEWAY EXCHANGE, INC. and KDD SUBMARINE CABLE SYSTEMS INC. will tackle part of that bottleneck by building backhaul circuits between the landing stations in coastal Japan for undersea fiber-optic cable networks and major metropolitan centers and selling this capacity to communications carriers.

The partners will employ a new architecture for back-haul networks by locating the cable terminating equipment in a specific city rather than at a cable landing point. This arrangement, say PGE and KDD-SCS, should result in a big cut in facility costs while also improving transmission and service quality. The joint venture, in which the Burlingame, California partner will be the majority (51 percent) owner, initially will install backhaul circuits between cable landing stations in Kanagawa and Chiba prefectures and central Tokyo. This work is scheduled to be completed by mid-2000. Pacific Gateway was among the first foreign communications carriers to receive a Type I license from the Ministry of Posts and Telecommunications (see Japan-U.S. Business Report No. 351, December 1998, p. 26).

Two months ahead of schedule, AT&T CORP. and BRITISH TELECOMMUNICATIONS PLC completed their strategic and operational partnership with JAPAN TELECOM CO., LTD. (see Japan-U.S. Business Report No. 356, May 1999, p. 30). In the biggest investment to date by foreign competitors in Japan's huge communications market, they acquired a combined 30 percent stake in the third-largest long-distance carrier at a cost of some \$1.8 billion. Japan Telecom then turned around and took over AT&T's in-country data communications business, AT&T JENS CORP., as well as BT's communications services and network information services.

The deal strengthens Japan Telecom's ability to deploy new services and technologies to its customers. More importantly, it gives AT&T and BT an established, nationwide channel to deliver the branded services of their international joint venture to multinational business customers and international carriers. The timing of the launch of those services hinges on U.S. regulatory approval.

Corporations and other high-volume telephone users have another choice in international services providers. Through its Hong Kong subsidiary, GTE CORP. began offering low-cost, flat-rate connections September 1 by leasing capacity from other carriers between Hawaii and Japan that is tied into publicly switched networks on both sides of the Pacific. GTE is charging 43 cents for a three-minute Japan-U.S. call at any hour of the day or night. That represents a savings of 80 percent over KDD

CORP.'s daytime rates, for instance.

PSINET INC. made headlines in the business press last year by using acquisitions to become Japan's number- two ISP for corporate accounts (see Japan-U.S. Business Report No. 350, November 1998, p. 27). Now, the Herndon, Virginia company, which bills itself as the world's first and largest independent commercial ISP, has announced several initiatives designed to provide a complete Internet solution to its Japanese business customers. The starting point of this push is wholly owned PSINETWORKS JAPAN INC.'s recently received Type I license, which will allow the extension of PSINet's facilities- based IP network. Once the Japan-U.S. Cable Network becomes operational in mid-2000, the company, which has capacity on this undersea fiber-optic system, will use its operating authority to provide high-speed communications networking services to customers in Japan and elsewhere in Asia. In the interim, PSI-Net has committed as much as \$265.5 million to build three Internet hosting centers in Japan, each with the capacity to house 5,000 servers. The 43,000-square-foot Tokyo Global Hosting Center is scheduled to open in mid-October. Equipped with its own power-generating system and designed to withstand an earthquake of the same magnitude as the 1995 Great Hanshin Earthquake, the facility will provide large-scale, high-reliability, fully managed services to other carriers and ISPs. Within the next two years, a second Internet hosting center will be built in the Tokyo area as well as one in the Kansai region. Moreover, by the end of September, PSINet-works Japan will introduce an economy service plan to corporate subscribers located within about nine miles of one of its Internet access points. Customers that sign up for this package will pay \$3,000 a month, including \$1,400, about half the normal charge, for fast (1.5 mega-bit per second) Internet access and the rest for the use of dedicated lines for other services.

Low-cost, high-speed Internet access finally will be available to homes in Japan, at least those in Tokyo and the surrounding area, in the summer of 2000. This breakthrough will be delivered by an unexpected source: SPEEDNET INC., a company formed by equal owners MICROSOFT CORP., SOFTBANK CORP. and TOKYO ELECTRIC POWER CO., INC. SpeedNet will use TEPCO's fiber-optic electricity transmission network. Subscribers will be linked to this backbone via an antenna-based technology known as a fixed wireless network. SpeedNet will bypass completely NIPPON TELEGRAPH AND TELEPHONE CORP.'s regional telephone network. Since the joint venture will not have to pay the stiff interconnection fees to NTT that are said to have retarded the growth of the Internet in Japan, the new ISP will be able to charge subscribers just a fraction of the \$88.50 or so a month that NTT plans to bill for a forthcoming flat-rate Internet service plan. Moreover, SpeedNet customers will have a faster connection: 1 gigabit per second versus the 64-kilobit-per-second access that the communications giant will offer. Microsoft and Softbank are talking about tying up with some of Japan's other nine regional electric utilities to bring inexpensive, fast Internet access to their service areas. Apartments, hotels, schools and any other place where there is a concentration of people can get fast Internet access for as little as \$17.70 a month per unit.

NICHIMEN CORP. is marketing this xDSL (**digital** sub-scriber line) service, which is made possible by ACU-COMM, INC. access products that the trader distributes (see Japan-U.S. Business Report No. 358, July 1999, p. 35). The Santa Clara, California company's equipment is much easier to install in existing buildings than, say, a local area network. At least for apartment residents, however, this means of Internet access can involve some heavy up-front costs since they or management must pay for the networking and customer premises equipment and its installation. Another potential drawback is that all the participants must sign up with the same ISP. Nonetheless, Nichimen is projecting revenues from the sale of AcuComm equipment at \$17.7 million to \$26.6 million in 2000.

JFAX.COM, an Internet-based messaging provider, has introduced its Unified Messaging service in Tokyo and Osaka through KUNI RESEARCH

INTERNA-TIONAL CORP. The Los Angeles firm's service transforms a subscriber's e-mail box into a depository for faxes and voice mail as well as e-mail, with retrieval of e-mail and voice mail possible by phone or e-mail. People anywhere in the world can get a home or business phone number in Tokyo and Osaka from JFAX.COM, through which the company sends both faxes and voice mail.

Atlanta's IXL, INC., which advises Fortune 1000 companies on how the Internet can be used to their competitive advantage and draws on its in-house expertise to design, develop and deploy advanced Internet applications and solutions, has opened an office in Tokyo. Employees already are working with current iXL clients GENERAL ELECTRIC CO. and MERRILL LYNCH & CO., INC. to help them devise Internet strategies for Asia.

A second big-name company is distributing ESOFT INC.'s TEAM line of Linux-based Internet access products for small businesses. TOMEN CORP. joins NTT ELECTRONICS CORP. (see Japan-U.S. Business Report No. 354, March 1999, p. 31) in handling the appliances, which provide low-cost LAN-to-Internet connectivity for companies with up to 200 workstations. Broomfield, Colorado eSoft's all-in-one devices include a Web server, firewall security, remote-access capability and VPN functionality.

Hoping to move farther into the Internet field, IN-TEL CORP.'s subsidiary is working with OKI ELECTRIC INDUSTRY CO., LTD., a big communications equipment maker that is trying to remake itself as an Internet- related firm, to develop computer-telephony devices for inexpensive but high-quality voice-over-Internet- Proto-col communications. The development partners will draw on advances in Intel's processor technology both to shrink the size of the "Internet phone" and to add other capabilities to it, such as voice playback of e-mail messages or fax transmissions. The products, which could be commercialized as soon as next year, will be targeted at the Japanese market. Internet users interested in road or weather conditions in Iwate prefecture, one of Japan's main vacation areas, can get this information thanks to the local government's installation of VORAXRD.COM's AddView system. The Sunnyvale, California company calls its package the first complete Internet streaming video service.

The Iwate prefecture installation consists of 54 cameras located along various roads, ISDN (integrated services digital network) links to local reflectors and satellite connections to the VoraRD.com AddView server in California. People accessing the service select the desired area from the 54-image menu. They then get a live image of traffic or weather at that location. A remote control feature allows the user to move the camera through a 160-degree arc and to zoom in on things of interest. A video network platform developed by MINER-VA SYSTEMS, INC. to address the video processing requirements of sophisticated IP networks is available from KANEMATSU ELECTRONICS LTD. The Mountain View, California company's Minerva VNP provides MPEG encoding and decoding for a variety of video networking applications. It incorporates an embedded processor running a real-time operating system as well as a state-of-the-art codec chip. Minerva claims that its MPEG network appliance is easier to integrate, more reliable, smaller in size and provides greater scalability than currently available PC-based encoders. Those features have led KEL to project sales of 300 systems in the first year at prices ranging from \$11,300 to \$36,700.

Having made a name for itself in the field of packet voice communications systems for voice/fax/data/ video networking over IP, frame relay and circuit-switched networks, NUERA COMMUNICATIONS, INC. has moved into the Japanese market. The San Die-go, California firm chose TERILOGY CO., LTD. to distribute two of its products. For carrier customers, Nuera offers its new ORCA (open, reliable communications architecture) Internet telephony gateway, which provides supplier since sizes in Japan differ from those in the United States, where the company has its own factory, and in England, Germany and France, HCI's other international operations. However,

the company will utilize the same sales formula of sending program participants four pairs of stockings every six weeks. They will have a choice of 10 colors in five sizes at prices ranging from \$3.55 a pair to \$4.40, which is less than department stores and other retailers in Japan charge for quality products.

TRANSPORTATION EQUIPMENT

Virtually all American Tier 1 automotive parts manufacturers lately have expressed renewed interest in the Japanese market. The Visteon Automotive Systems unit of FORD MOTOR CO., the world's second-largest parts supplier, has gone a big step further. For an undisclosed price, it acquired NALDEC CORP., a maker of advanced electronic body and safety vehicle modules, from MAZDA MOTOR CORP. The Hiroshi-ma- head-quartered company was formed in 1987 as an equally owned venture between now Ford-controlled Mazda and NEC CORP. The latter sold its share to its partner at the end of June in preparation for a divestiture. Naldec, which employs approximately 220 people, including about 70 engineers, had sales of \$88.5 million in the year through March 1999. During that period, it produced some 4 million air bag, antilock brake, keyless entry, speed control and other electrical modules, primarily for Mazda. The deal has obvious benefits for Mazda and Visteon alike. For the Japanese automotive maker, the sale is part of its financial comeback strategy of shedding nonessential businesses to focus on its core car and truck operations. It follows by roughly a month the sale of Mazda's financing unit to FORD MOTOR CREDIT CO. (see Japan-U.S. Business Report No. 359, August 1999, p. 20). For Visteon, the acquisition of Naldec not only gives it an onshore production capability and the means to expand business with other Japanese vehicle makers but also a source of manufacturing expertise that potentially can be applied to other operations around the world.

The 13-year-old manufacturing joint venture between DELPHI AUTOMOTIVE SYSTEMS CORP.'s Harrison Thermal Division and CALSONIC CORP. has announced plans to launch production for export of a next-generation air-conditioning compressor that the two developed. CALSONIC HARRISON CORP., in which the biggest automotive parts supplier in the world has a 49 percent stake, will add to the output of its Utsunomiya, Tochigi prefecture factory in the fourth quarter a compact variable compressor that is said to generate less noise and vibration than conventional vehicle AC compressors. The plant now makes current-generation variable-displacement compressors for the Japanese market. At capacity operation, Calsonic Harrison will be able to turn out 450,000 CVC units a year, initially for BMW AG's European plants. The expansion will create about 170 jobs.

MISCELLANEOUS

One of the biggest makers of self-adhesive labels and other office paper products is moving into Japan with plans to quickly capture a significant share of this market. AVERY DENNISON CORP. is teaming with HITACHI MAXELL, LTD. to sell some 200 Avery-brand and cobranded self-adhesive labels, customized card products, related software and other office products to PC users with desktop printers. The Pasadena, California company will own 51 percent of AVERY DENNISON-MAXELL CO. Using Hitachi Maxell's marketing channels, the joint venture expects to have its products in outlets across Japan by January 2000. The Tokyo-headquartered business, to be staffed by managers and employees from both parents, is going after 30 percent-plus of the \$100 million market for labels and customized card products, with annual sales projected at \$26.6 million in three years. In time, Avery Dennison-Maxell plans to have a domestic manufacturing capability. Beginning January 1, 2000, CALLAWAY GOLF CO. will directly market its golf clubs and golf balls in Japan. SUMITOMO RUBBER INDUSTRIES, LTD. has had this job for the past 11 years. For reasons that were not given, the Carlsbad, California maker of the popular Big Bertha line of clubs and its distributor decided to end their relationship when the current marketing contract expires at the end of this year. Sales of Callaway products totaled a reported \$88.5 million in 1998. The firm already has a wholly owned Japanese subsidiary.

Combining technology licensed from TEXACO INC. for the production of fuel from sewage sludge with its own proprietary know-how, TERRABOND CO., LTD. codeveloped with MN ENGINEERING CO., LTD. a production process for what it calls combustible refuse slurry. In simplified terms, the system for making this environmentally beneficial fuel involves the separation of combustible organic household, industrial and commercial waste into low heat-generation products, such as garbage and paper, and those like waste plastics that have high heat-generation capabilities. These products then are carbonized, turned into an oil substance and/or pulverized into a slurry. Several mixings later, the slurry is transformed into a fuel. One of the key attractions of the CRS system is its ability to separate solids and liquids from the same waste. Tokyo-based Terrabond, an environmental plant developer, now is seeking companies to utilize its fuel production system. Texaco signed the licensing agreement with Terrabond in January 1999. The arrangement explicitly excludes the White Plains, New York-headquartered oil major's gasification technology.

Two AMERICAN FIRETECT, INC

fire-retardant chemicals already are on the market in Japan through distributor CUBIC CORP.: the Safe-T-Guard fire retardant for on-bolt fabric, the Feasterville, Pennsylvania company's key product, and a Safe-T-Guard fire retar- dant for the treatment of wood products. Cubic, a specialty chemical trader located in Tokyo, now is in the process of introducing two other American Firetect products. One is a paint that, used on boats, enables barnacles, seaweed and other material sticking to the vessel's surface to be washed off. The paint also can be applied to the inside of pipes in sewage treatment plants, thereby allowing built-up sludge to be removed through washing. The other new product controls odors in, for example, water-treatment facilities YLA CELLULAR PRODUCTS CO., a Livermore, California manufacturer of specialty honeycomb materials sold under the ULTRACOR brand, named TOKYO TECHNOLOGIES, INC. to sell two of its cutting-edge products to Japanese aerospace companies. ULTRA-COR is a very low-density honeycomb core material designed for use in highly weight-sensitive structures, including satellite antenna reflectors and solar arrays.

Unlike the hexagonal or square cell shapes of other makers' honeycomb material, ULTRACOR incorporates a web construction. That difference means that a honey-comb can be produced from any structural fiber and that the fiber can be oriented in any desired direction or in more than one direction. The ULTRACOR products available in Japan are a carbon-carbon honeycomb with a 3/8-inch cell size and a one-fourth-inch quartz-fiber honeycomb. Tokyo Technologies' marketing **rights** ex-tend to other Asian countries.

Medical institutions in Japan soon will have help in preventing and controlling infectious diseases in their facilities. The initiative is spearheaded by COLBY GROUP INTERNATIONAL, INC. of Edmonds, Washington, which specializes in transpacific biomedical business and technical relations. It has enlisted the cooperation of the ASSOCIATION FOR PROFES-SIONALS IN INFECTION CONTROL AND EPI-DEMIOLOGY, INC., a nonprofit, voluntary, international organization based in Washington, D.C., to establish an APIC-like group of infection-control professionals in Japan. This organization will draft voluntary standards for preventing and controlling infectious diseases in medical settings. Colby Group then plans to tie up with Japanese pharmaceutical companies in an or- ganization that will help hospitals and other medical institutions meet the new standards.

MEDTAP INTERNATIONAL, INC., a health-services research firm based in Bethesda, Maryland, has teamed with Tokyo's CRECON RESEARCH & CONSULTING, INC. to offer what they call pharmacoeconomics consulting and research services to drug companies around the world. MEDTAP will contribute to the alliance its technical expertise as well as business support in the United States and Europe. Crecon, in turn, will provide its technical and market research knowledge of the Japanese market. With this input, MEDTAP will be better positioned to serve its multinational clients

on a global basis. At the same time, Crecon should be able to respond more effectively to the growing demand in Japan for socioeconomic evaluations of health-care issues.

In a deal that should help fuel the growth of the investment trust or mutual fund industry in Japan, STANDARD & POOR'S CORP. acquired IFIS INC., one of the country's few independent sources of information and analysis on domestic mutual funds. The three-year-old Tokyo company provides data on 1,800 Japanese open-ended funds and 3,200 closed ones. IFIS market trackers have joined the analytical team that S&P has had in Tokyo since 1986. The acquisition, the terms of which were not disclosed, also bolsters S&P's claim of being the world's leading provider of independent mutual fund information and analysis.

Another American advertising agency is altering its relationship with its Japanese partner. In this instance, YOUNG & RUBICAM INC., which ranks fifth in the world in terms of billings, and DENTSU INC., Japan's top ad agency, are restructuring the ownership of three in-country joint ventures and 12 elsewhere in Asia in the hope of generating more business. In Japan, Y&R and Dentsu will switch their shareholdings, with the Manhattan firm becoming the minority (49 percent) partner in the trio. In the dozen non-Japanese companies, now equally owned, Y&R will increase its stake to two-thirds. Y&R and Dentsu have had a Manhattan tie-up since 1981.

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8/9/15 (Item 15 from file: 20)

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RioPort Inc. and Universal Music Group Agree to Make Music Content Available to SDMI-Compliant RioPort Platform; RioPort Platform Will Offer Popular New **Digital**lt; Music to Consumers

BUSINESS WIRE

July 20, 1999

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SAN JOSE, Calif.--(BUSINESS WIRE)--July 20, 1999--RioPort Inc., a wholly owned subsidiary of Diamond Multimedia Systems Inc. (Nasdaq:DIMD), today announced that Universal Music Group will deliver secure, popular music to RioPort's SDMI-compliant portable flash memory devices and will develop an initiative to harmonize **digital** delivery services offered by both companies in the future.

RioPort will be one of the first **digital** audio platforms to offer a broad range of content from Universal Music Group's record labels, which include Interscope, A&M, Island, Def Jam, Geffen, MCA, Universal, Motown, GRP and Verve, among others.

"Universal Music Group's support of the RioPort platform is great news for digital audio enthusiasts worldwide," said David Watkins, president of RioPort. "RioPort and Universal will work closely together to integrate and promote Universal's music content with our RioPort.com Web site and SDMI-compliant Rio portable digital audio players.

"We hope that our agreement with Universal is one of many that will deliver popular music content to RioPort customers. We expect Universal's content to be available in the winter."

Larry Kenswil, president, Electronic Commerce and Advanced Technology, Universal Music Group commented: "UMG will support our artists by providing the broadest and deepest reach for their music. We encourage SDMI standards and are happy that RioPort is one of the first to announce a compliant device."

Both RioPort and Universal are supporting InterTrust as a preferred provider of **digital rights** management technology to ensure the protection of content copyright holders. Early on, RioPort partnered with InterTrust and Reciprocal to ensure the security of content delivery through its RioPort.com site, Rio Audio Manager software and Rio brand portable playback solutions.

"Our deal with Universal Music Group recognizes that the Internet is becoming a viable distribution system for the delivery of digital content," said J.D. Heilprin, general manager and publisher of RioPort.com.

"Universal Music Group is the world's largest music company and having access to their content assures RioPort and its network of affiliate sites a tremendous offering of music tracks from leading artists as well as popular catalog content."

Universal Music Group will be integrating content through Rio Search, RioPort's powerful search engine, allowing consumers to access, purchase and download popular content not previously available in **digital** content through the www.rioport.com Web site, as well as affiliate partner sites.

Additionally, consumers will be able to enjoy this new content in their own environments without being tied to their PC by using RioPort-compatible players, such as the new SDMI-compliant Rio portable music players expected to ship later this year.

The RioPort.com site delivers broad access to a vast selection of legitimate **digital** music and spoken audio content. In addition to Universal, RioPort is in talks with **other** major **content** providers to secure a range of popular music for its customers.

Currently, consumers can find hundreds of **links** to **digital** audio **content** aggregated from the best sources on the Internet on the RioPort.com site. Content is intuitively organized throughout the site, making it quick and easy for fans to find exactly what they are searching for.

RioPort Inc.

RioPort is redefining **digital** audio by delivering an integrated platform for acquiring, managing and experiencing music and spoken audio programming from the Internet. RioPort delivers an extensive selection of **digital** music and spoken audio programming through its RioPort.com **digital** audio gateway, full content management with its Rio Audio Manager software and cutting-edge playback solutions with its RioPort compatible players.

Company headquarters are in San Jose, where its business development, engineering and marketing teams are located. RioPort's artist relations, content aggregation and online creative team is based in Los Angeles, and

its portable player design team is based in Korea.

Universal Music Group

Universal Music Group is the world's leading music company with wholly owned record operations or licensees in 59 countries around the world. Its businesses also include Universal Music Publishing Group, one of the industry's largest global music publishing operations, and Universal Concerts.

Universal Music Group consists of record labels A&M, Blue Thumb, Decca Record Company, Def Jam, Deutsche Grammophon, Geffen, GRP, Impulse!, Interscope, Island, MCA, MCA Nashville, Mercury, Mercury Nashville, Motown, Philips, Polydor, Universal and Verve as well as a multitude of record labels owned or distributed by its record company subsidiaries around the world.

Universal Music Group is a unit of The Seagram Company Ltd., a global entertainment and spirits and wine company.

About Diamond Multimedia

Diamond Multimedia is a leader in PC multimedia and Internet connectivity, providing advanced products that enable desktop computer users to create, access and experience compelling new media content from their PCs and through the Internet.

Products include the Rio series of Internet audio appliances, the Stealth and Viper(R) series of video accelerators, the Monster series of 3-D gaming accelerators, the Fire series of professional graphics accelerators, the Supra(R) series of modems, and the HomeFree line of home networking products.

Diamond's common stock is traded on the Nasdaq under the symbol DIMD, and its Web site address is www.diamondmm.com. The company's Internet digital audio portal site is at www.rioport.com.

How to Contact Diamond Multimedia

There are many ways to reach Diamond for sales support, technical assistance, driver updates and general information:

Internet Web Site: www.diamondmm.com and www.rioport.com E-Commerce Site: www.estore.diamondmm.com Diamond Multimedia's Headquarters and Multimedia Division: 408-325-7000; Fax: 408-325-7070 Communications Division (Supra brand modems) Main Phone Number: 360-604-1400; Fax: 360-604-1401 European Division (Germany): +49-8151-266-0; (UK): +44-1189-444400; (France) +33-1-55381600 Korean Office (Seoul): +82-2-2185-3388; Fax: +82-2-501-7522 Japanese Office (Tokyo): +81-3-5695-8401; Fax: +81-3-5695-8403 ASEAN Office (Singapore): +65-353-9511; Fax: +65-353-9510 Hong Kong Office: +852-2262-9518; Fax: +852-2262-9555 Australian Office (Sydney): +61-2-9460-2355; Fax +61-2-9460-2360 Latin America Office (Miami): 305-593-8777; Fax: 305-593-2779 Mexico Office (Guadalajara): 523-110-1144; Fax: 523-110-0744 Product Support (Voice), United States: 541-967-2450; Europe (Germany) +49-8151-266-330; Europe (UK) +44-1189-444444; Europe (France) +33-1-55381616; TDD/TTY Support 541-967-2451 Product Support (Fax), United States: 541-967-2401; Europe (Germany) +49-8151-266-331; Europe (UK): +44-1189-444445; (France) +33-1-55381601 Pre-sales Information: 800-468-5846 24-Hour Fax-On-Demand Service: 800-380-0030 Investor Relations: 408-325-7476; 888-474-3463 (U.S. and Canada) FTP site: ftp.diamondmm.com BBS: Europe (Germany) BBS at +49-8151-266333 (to 28.8 Kbps) or +49-8151-266334 (ISDN); Europe (UK) at +44-1189-444415 (to 33.6 Kbps)

Note to Editors: HomeFree, Monster 3D, Rio, Shotgun, SpeedStar and SupraSonic are either trademarks or registered trademarks of Diamond Multimedia Systems Inc. Monster(R) is a registered trademark of Monster Cable. Viper(R) is a registered trademark of Directed Electronics Inc., Used under License. All other trademarks referenced are the service mark, trademark or registered trademark of their respective manufacturers. This announcement relates to products whose introductions are in North America. The product name, contents, prices and availability may differ elsewhere in the world according to local factors and

requirements.

Except for historical information contained herein, the matters set forth in this news release, such as statements relating to the company's ability to successfully exploit technological and market developments, the timing and success of new product introductions by the company and its competitors, and the company's ability to invest in new technologies and to enhance its existing systems are forward-looking statements that are subject to risks and uncertainties, including the impact of competitive products and pricing and alternative technological advances, the timely and successful development and market acceptance of new products and upgrades to existing products, and other risks as detailed from time to time in Diamond Multimedia's SEC filings, including its most recent Forms 10-K and 10-Q.

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Company Names: Diamond Multimedia Systems Inc

Descriptors: Product Management; Marketing; Company News; Consumer Issues; General News; New

Products & Services

Country Names/Codes: United States of America (US)

Regions: Americas; North America; Pacific Rim

SIC Codes/Descriptions: 3652 (Prerecorded Records & Tapes)

8/9/16 (Item 16 from file: 20)

06289246

RioPort, Inc. and Universal Music Group Agree to Make Music Content Available To SDMI-Compliant RioPort Platform

BUSINESS WIRE

July 20, 1999

Journal Code: WBWE? Language: English? Record Type: FULLTEXT

Word Count: 1444

SAN JOSE, Calif.--(BUSINESS WIRE)--July 20, 1999--RioPort Platform Will Offer Popular New

Digital Music to Consumers

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will deliver secure, popular music to RioPort's SDMI-compliant portable flash memory devices and will develop an initiative to harmonize **digital** delivery services offered by both companies in the future.

RioPort will be one of the first **digital** audio platforms to offer a broad range of content from Universal Music Group's record labels, which include Interscope, A&M, Island, Def Jam, Geffen, MCA, Universal, Motown, GRP and Verve, among others. Trials are expected to begin in the fall and content will be available to consumers this winter.

"Universal Music Group's support of the RioPort platform is great news for digital audio enthusiasts worldwide," said David Watkins, president of RioPort, Inc. "RioPort and Universal will work closely together to integrate and promote Universal's music content with our RioPort.com web site and SDMI-compliant Rio portable digital audio players. We hope that our agreement with Universal is one of many that will deliver popular music content to RioPort customers."

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"Our deal with Universal Music Group recognizes that the Internet is becoming a viable distribution system for the delivery of digital content," said J.D. Heilprin, general manager and publisher of RioPort.com. "Universal Music Group is the world's largest music company and having access to their content assures RioPort and its network of affiliate sites, a tremendous offering of music tracks from leading artists as well as popular catalog content."

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The RioPort.com site delivers broad access to a vast selection of legitimate digital music and spoken audio content. In addition to Universal, RioPort is in talks with other major content providers to secure a range of popular music for its customers. Currently, consumers can find hundreds of links to digital audio content aggregated from the best sources on the Internet on the RioPort.com site. Content is intuitively organized throughout the site, making it quick and easy for fans to find exactly what they are searching for.

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Company headquarters are in San Jose, Calif., where its business development, engineering and marketing team is located. RioPort's artist relations, content aggregation and online creative team is based in Los

Angeles, and its portable player design team is based in Korea. Universal Music Group

Universal Music Group is the world's leading music company with wholly-owned record operations or licensees in 59 countries around the world. Its businesses also include Universal Music Publishing Group, one of the industry's largest global music publishing operations, and Universal Concerts.

Universal Music Group consists of record labels A&M, Blue Thumb, Decca Record Company, Def Jam, Deutsche Grammophon, Geffen, GRP, Impulse!, Interscope, Island, MCA, MCA Nashville, Mercury, Mercury Nashville, Motown, Philips, Polydor, Universal, and Verve as well as a multitude of record labels owned or distributed by its record company subsidiaries around the world. Universal Music Group is a unit of The Seagram Company Ltd., a global entertainment and spirits and wine company.

About Diamond Multimedia

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The Company's Internet **digital** audio portal site is at www.rioport.com and its e-commerce site is at www.estore.diamondmm.com. How to Contact Diamond Multimedia

There are many ways to reach Diamond for sales support, technical assistance, driver updates and general information:

Internet Web Site: www.diamondmm.com and www.rioport.com E-Commerce Site: www.estore.diamondmm.com Diamond Multimedia's Headquarters and Multimedia Division: 408/325-7000; Fax: 408-325-7070 Communications Division (Supra brand modems) Main Phone Number: 360-604-1400; Fax: 360-604-1401 European Division (Germany): +49-8151-266-0; (UK): +44-1189-444400; (France) +33-1-55381600 Korean Office (Seoul): +82-2-2185-3388; Fax: +82-2-501-7522 Japanese Office (Tokyo): +81-3-5695-8401; Fax: +81-3-5695-8403 ASEAN Office (Singapore): +65-353-9511; Fax: +65-353- 9510 Hong Kong Office: +852-2262-9518; Fax: +852-2262-9555 Australian Office (Sydney): +61-2-9460-2355; Fax +61-2-9460-2360 Latin America Office (Miami): 305-593-8777; Fax: 305-593-2779 Product Support (Voice), United States: 541-967-2450; Europe (Germany) +49-8151-266-330; Europe (UK) +44-1189-444444; Europe (France) +33-1-55381616; TDD/TTY Support 541-967-2451 Product Support (Fax), United States: 541-967-2401; Europe (Germany) +49-8151-266-331; Europe (UK): +44-1189-444445; (France) +33-1-55381601 Pre-sales Information: 1-800-468-5846 24-Hour Fax-On-Demand Service: 1-800-380-0030 Investor Relations: 408-325-7476; 1-888-474-3463 (U.S. and Canada) FTP site: ftp.diamondmm.com BBS: Europe (Germany) BBS at +49-8151-266333 (to 28.8 Kbps) or +49-8151-266334 (ISDN); Europe (UK) at +44-1189-444415 (to 33.6

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Descriptors: Product Management; Marketing; Company News

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SIC Codes/Descriptions: 3652 (Prerecorded Records & Tapes)

8/9/17 (Item 17 from file: 20)

06221363

RioPort, Inc. Wins Compaq Business to Deliver Portable **Digital** Audio Devices and Software to Presario Customers

BUSINESS WIRE

July 15, 1999

Journal Code: WBWE ? Language: English ? Record Type: FULLTEXT

Word Count: 1235

SAN JOSE, Calif.--(BUSINESS WIRE)--July 15, 1999-Compaq Bundles the Rio PMP300 and RioPort Audio Manager Software

with its Presario 5000 Series for Back-to-School Promotion
RioPort, Inc., a wholly owned subsidiary of Diamond Multimedia
Systems, Inc. (Nasdaq:DIMD), today announced that it has signed an OEM deal
with Compaq Computer Corporation (NYSE:CPQ) to deliver a complete
digital audio solution for Presario 5000, 5600S and 5700T
customers in a special back-to-school promotion.

The promotion, which begins today, offers consumers who purchase a Presario 5000, 5600S and 5700T series entertainment PC, a special 32MB Rio PMP300 portable **digital** audio player in a translucent teal case and a full version of the new RioPort Audio Manager software. The Presario back-to-school promotion is offered through Compaq's Built for You Custom PC Centers (www.compaq.com/athome/builtforyou.html) and Compaq's Home and Home Office online store (www.compaq.com/store/index.asp).

"We're very excited to be working with Compaq on this special promotion," said Chris Loh, director of business development for RioPort, Inc. "Clearly, consumers are increasingly using their PCs and the Internet to access music and other audio files and we are pleased that Compaq recognizes us as the leader in this emerging market. Our intent is to continue offering Compaq with the best digital audio solutions as we evolve our hardware designs, software and content offerings."

RioPort Audio Manager Software

The Rio Audio Manager software allows audio enthusiasts to easily search, acquire, create, organize and playback their favorite music or spoken audio programming in one simple application. The Rio software is compatible with the Rio PMP300, Rio 500 and other RioPort compatible portable players and is an integral part of the RioPort digital audio platform, which provides integrated components for delivering a seamless digital audio experience over the Internet to consumers worldwide.

The Rio Audio Manager directs users to the **content** they are looking for with a direct **link** to the RioPort.com web portal and allows them to completely manage that acquired **content** (or tracks from their own audio CD collection) through their own personal jukebox, which includes unlimited encoding capability, a media player, database manager and download agent. The new Rio Audio Manager software is PC compatible and MetaTrust(TM) ready, addressing the concerns of **digital** content owners by delivering persistent protection from piracy.

Rio PMP300 Digital Audio Player

The Rio PMP300 is a portable, lightweight **digital** audio player for mixing and storing up to sixty minutes of **digital** quality music or up to eight hours of voice-based audio from the Internet or CDs through a PC. The device supports the MP3 compression protocol and features a simple interface for easily transferring audio files to the device.

The Rio PMP300 contains 32MB of onboard memory and can be expanded to 64MB with the purchase of removable flash memory upgrade cards (sold separately). A 64MB translucent teal special edition of the Rio, the PMP300 SE, is also available from Diamond's online store at http://estore.diamondmm.com. The Rio is smaller than an audiocassette player and has no moving parts so it won't skip, even during extreme movement. It is powered by a single AA battery and the Compaq bundled version features a translucent teal case.

RioPort, Inc.

RioPort, Inc. is redefining **digital** audio by delivering an integrated platform for acquiring, managing and experiencing music and spoken audio programming from the Internet. RioPort delivers an extensive selection of **digital** music and spoken audio programming through its RioPort.com **digital** audio gateway, full content management with its Rio Audio Manager software and cutting-edge playback solutions with its RioPort compatible players.

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Company Names: Compaq Computer Corp

Descriptors: Product Management; Marketing; Company News; New Products & Services

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Regions: Americas; North America; Pacific Rim

SIC Codes/Descriptions: 7372 (Prepackaged Software); 3571 (Electronic Computers)

8/9/18 (Item 18 from file: 621)

01905937 ? ?**Supplier Number:** 54978323

RioPort, Inc. Unveils New Gateway to the Internet Audio Era.

Business Wire, p 0106

June 24, 1999

Language: English ? ?Record Type: Fulltext

Document Type: Newswire; Trade

Word Count: 2159

Text:

SAN JOSE, Calif.--(BUSINESS WIRE)--June 24, 1999--

New RioPort.com Portal will Provide Integrated Solution for Acquiring, Managing and Experiencing Variety of **Digital** Audio Content

RioPort, Inc., a wholly owned subsidiary of Diamond Multimedia Systems, Inc. (Nasdaq: DIMD), today announced the details of its dynamic online digital audio gateway, RioPort.com. RioPort.com will deliver broad access to a vast selection of legitimate digital music and spoken audio content on the Internet, as well as access to playback hardware, management software and tools for experiencing the world of digital audio. By combining these elements in an easy-to-use, personalized fashion, RioPort.com will deliver an integrated digital audio solution to Internet consumers when, where and how they want it. The fully featured site is expected to go live in August, and is being developed in conjunction with global Internet solutions provider, iXL, and a number of leading technology companies.

At RioPort.com, people will be able to obtain music and spoken word content, including digital novels, audio newspapers, radio shows and television transcripts; buy cool new products like portable digital audio players, CDs and accessories from a variety of manufacturers; access personalized services, including industry news and ticket sales; download RioPort's exclusive Rio Audio Manager software for managing and playback of all their digital audio (see announcement also made today); and become members in a community of artists and digital audio fans - without ever leaving the site.

Consumers can already find hundreds of links to legitimate digital audio aggregated from the best sources on the Internet, including companies like GoodNoise, Amplified.com, UBL.com, Audible, Inc., CDuctive, Riffage.com and MP3.com, as well as record labels and individual artists. Content is intuitively organized throughout the gateway, making it

quick and easy for fans to find exactly what they are searching for.

"Digital audio is here and is the future. It will significantly impact they way we entertain, educate and exchange information," said J.D. Heilprin, publisher and general manager of RioPort Inc. "Today, consumers face obstacles in the measures they have to take to access content, services and products. Rioport.com is aggressively addressing this problem by delivering an intuitive and simplified integrated solution for selecting, obtaining and playing back the hottest digital audio content available on the Internet. The RioPort web solution is just one aspect in an integrated platform for the delivery of digital content."

Delivering the Best **Digital** Audio Content on the Internet RioPort.com's intent is to become the leading **digital** audio gateway on the Internet by providing access to the widest array of content, services and products for consumers — all integrated to deliver a seamless **digital** audio playback solution. The company's expanding relationships with major portals and content sites on the web allows it to assist artists and labels in bringing **content** to market rather than competing against them. RioPort subscribers can even directly **link** to major retailers like Tower Records to purchase CDs, videos and more.

Industry leading partners will provide all of the necessary tools and content that power the RioPort.com site. In addition to the companies that provide content, RioPort has allied with companies that provide artist tools for creating content, such as SonicFoundry, and Rio-brand player licensees, including Diamond Multimedia. By clicking on the "Tools" button, users will be able to download software players, MP3 encoders and decoders, utility products and more.

In addition to music, RioPort users will have access to a broad range of spoken word audio files from Audible, including comedy sketches from George Carlin, John Pinette, Doug Stanhope, Maryellen Hooper, and more; books for learning; lectures and study guides; daily audio reports from outlets including The New York Times; and radio broadcasts from National Public Radio and other syndicated radio shows, such as the "Doctor Ruth Westheimer Show" and "Sports Talk."

RioPort's support for InterTrust's security system, now adopted by Universal Music, ensures an ongoing flow of high quality content for subscribers. This, combined with RioPort's support for both Reciprocal and Microsoft's **Digital Rights** Management systems, will ensure the broadest range of secure **content** (see **separate** release).

"RioPort.com is building simply the best source of information, resources and content for people interested in **digital** audio," said Heilprin. "We have focused resources on developing partnerships with the premiere content, hardware and tools companies to provide RioPort.com users with the best **digital** audio experience possible. Our desktop tools are superior. Our efforts in the area of security are comprehensive. There are many companies providing the pieces of the **digital** audio puzzle, but RioPort.com is the only site that will pull it all together, providing a comprehensive integrated **digital** audio solution."

Intuitively Organized

There is nothing more frustrating to **digital** audio enthusiasts than going to a site only to find a mish-mash of loosely organized content with no clear way to find what they want. When consumers first visit RioPort.com, they will be greeted with a thoughtfully constructed home page with one-click access to content, hardware and software tools and products. "We are working overtime to simplify the process of locating, downloading and managing **digital content**," said Heilprin. In addition, they will find News and Promotions headlines, **links** to artists in the RioPort Spotlight and easy-to-use Search functions. Those who register will be able to create

their own Member Home Page, personalized through the "My RioPort" function. Personalized for Each Member

The RioPort.com site will be easily customized for each subscriber through the "My RioPort" function, which allows them to create their own customized digital audio gateway. Subscribers will simply tell RioPort what they like and how they like it, and the site will respond by bringing them the content and services of interest to them. By analyzing their profile and usage history, RioPort can deliver new recommendations at each visit. A personalized calendar function will generate a daily reminder of what's new on the site and provide a weekly planner for music-related events.

RioPort members define six jump buttons that will automatically take them to any master or sub-genre page of their choice. Powerful personalization agents will automatically send members information on featured artists and news on promotions that may be of interest to them, based on the content genres to which they have subscribed. RioPort.com will feature powerful drill-down functionality that brings the user all the way from a list of Master Genres (ie., music or spoken word) down to a Track Page that delivers the specifics of an individual audio file, including title, creator, length of track, price, and download history.

Powerful Search and Browsing Capabilities

At RioPort's core is an intuitively constructed search tool enabling users to find and download the content they're looking for with minimal effort. Visitors to RioPort will be thrilled with the vast selection of music to choose from. Bands and artists are categorized under more than 30 musical genres -- from Alternative to World -- allowing visitors to quickly and easily locate the music.

With the growing plethora of audio content available on the Internet, it is critical for the user to have access to easy-to-use, responsive search mechanisms. In addition to simply entering the artist's name or song title using the RioSearch function, users will be able to search for the most popular downloads, songs within specific musical genres, and other audio content with one click of the mouse.

Content Management and Playback with New Rio Audio Manager Software

Central to the RioPort platform is its Rio Audio Manager management software, which functions as a direct link between the desktop and RioPort.com. The application allows consumers to search, locate, create and playback digital audio content in one simple step (see separate announcement also made today). Along with its powerful searching, locating and playback functions, the new Rio Audio Manager software lets people create a personal jukebox that they can easily scan to find the exact song title or audio bite they're searching for. All the users' digital audio tracks can be organized into personalized playlists and albums that they can playback from their PC or portable music device. Users can even upload data from their portable device to their PC.

RioPort's Rio Audio Manager software is included free with its upcoming Rio 500 portable Internet **digital** audio players, also announced today. Users of the original Rio PMP300 device can download the new software from RioPort.com for \$4.50; those who just want to playback content from RioPort.com from their PC can purchase the software for \$9.95.

The Rio Brand

Diamond Multimedia revolutionized the music world with its October 1998 introduction of the Rio PMP300, a pager-sized device that allowed for the portable playback of **digital** music from the Internet. Heralded as a break-through product in the media, the Rio PMP300 brought for the first time the term "MP3" into the mainstream and has spawned the development of third-party and shareware applications designed specifically for the device.

More information on these applications is available at www.rioport.com.

RioPort, Inc. intends to proliferate the Rio brand with the widespread deployment of the company's Rio Audio Manager software and a line of Rio **digital** audio players designed for a broad range of users. Future Rio designs are intended to be licensed to hardware manufacturers worldwide.

RioPort, Inc.

RioPort, Inc. is redefining **digital** audio by delivering an integrated platform for acquiring, managing and experiencing music and spoken audio programming from the Internet. RioPort delivers an extensive selection of **digital** music and spoken audio programming through its RioPort.com **digital** audio gateway, full content management with its Rio Audio Manager software and cutting-edge playback solutions with its Rio brand players, which are licensed to third-party companies. Company headquarters are in San Jose, Calif., where its business development, engineering and marketing teams are located. RioPort's artist relations, content aggregation and online creative team is based in Los Angeles, and its portable player design team is based in Korea.

About Diamond Multimedia

Diamond Multimedia is a leader in PC multimedia and Internet connectivity, providing advanced products that enable desktop computer users to create, access and experience compelling new media content from their PC's and through the Internet. Products include the Rio series of Internet audio appliances, the Stealth and Viper(R) series of video accelerators, the Monster series of 3D gaming accelerators, the Fire series of professional graphics accelerators, the Supra(R) series of modems, and the HomeFree line of home networking products. Diamond's common stock is traded on the NASDAQ under the symbol DIMD, and its web site address is www.diamondmm.com. The Company's Internet music portal site is at www.RioPort.com.

How to Contact Diamond Multimedia

There are many ways to reach Diamond for sales support, technical assistance, driver updates and general information:

Internet Web Sites: www.diamondmm.com and www.RioPort.com Diamond e-commerce Site: www.diamondmm.com/where-to-buy/online-store Diamond Multimedia's Headquarters and Multimedia Division:

408-325-7000; Fax: 408-325-7070 Communications Division (Supra brand modems) Main Phone Number:

360-604-1400; Fax: 360-604-1401 European Division (Germany): +49-8151-266-0; (UK): +44-1189-444400;

(France) +33-1-55381600 Korean Office (Seoul): +82-2-2185-3388; Fax: +82-2-501-7522 Japanese Office (Tokyo): +81-3-5695-8401; Fax: +81-3-5695-8403 ASEAN Office (Singapore): +65-353-9511; Fax: +65-353-9510 Hong Kong Office: +852-2262-9518; Fax: +852-2262-9555 Australian Office (Sydney): +61-2-9460-2355; Fax +61-2-9460-2360 Latin America Office (Miami): 305-593-8777; Fax: 305-593-2779 Mexico Office (Guadalajara):523-110-1144; Fax: 523-110-0744 Product Support (Voice), United States: 541-967-2450; Europe

(Germany) +49-8151-266-330; Europe (UK) +44-1189-444444; Europe (France) +33-1-55381616; TDD/TTY

Support 541-967-2451 Product Support (Fax), United States: 541-967-2401; Europe (Germany)

+49-8151-266-331; Europe (UK): +44-1189-444445; (France)
+33-1-55381601 Pre-sales Information: 1-800-468-5846 24-Hour Fax-On-Demand Service: 1-800-380-0030 Investor Relations: 408-325-7476; 1-888-474-3463 (U.S. and Canada) FTP site: ftp.diamondmm.com BBS: Europe (Germany) BBS at +49-8151-266333 (to 28.8 Kbps) or +49-8151-266334 (ISDN); Europe (UK) at +44-1189-444415 (to 33.6 Kbps)

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Company Names: *Diamond Multimedia Systems Inc.

Product Names: *3573000 (Computers & Peripherals); 7372544 (Sound/Audio Software)

Industry Names: BUS (Business, General); BUSN (Any type of business) **SIC Codes:** 3571 (Electronic computers); 7372 (Prepackaged software)

NAICS Codes: 334111 (Electronic Computer Manufacturing); 51121 (Software Publishers)

Ticker Symbols: DIMD

8/9/19 (Item 19 from file: 20)

05884277

RioPort, Inc.'s Exclusive Rio Audio Manager Allows PC Consumers to Easily Locate, Create, Organize and Playback Internet Audio in One Integrated Application

BUSINESS WIRE

June 24, 1999

Journal Code: WBWE? Language: English? Record Type: FULLTEXT

Word Count: 1529

SAN JOSE, Calif.--(BUSINESS WIRE)--June 24, 1999-New Application Provides Direct **Link** to RioPort.com **Content** Portal and Is Bundled with New Rio 500 Portable Internet Audio Players

RioPort, Inc., a wholly owned subsidiary of Diamond Multimedia Systems, Inc. (Nasdaq: DIMD), today announced its integrated Rio Audio Manager software, which allows Internet audio fans to easily search, acquire, create, organize and playback their favorite music or spoken audio programming in one simple application. The Rio software is an integral part of the RioPort digital audio platform, which provides integrated components for delivering a seamless digital audio experience

over the Internet to consumers worldwide. The company will deploy the new content management software, which will be bundled for free with its Rio 500, also announced today. Both PC and Macintosh(R) versions (iMac(TM)) will ship with the Rio 500. Consumers can also download the software at www.rioport.com.

While the remarkable compression and sound quality of MP3 technology has led to a plethora of **digital** audio content on the Internet, finding and managing desired content for playback has been both time consuming and difficult. The new Rio Audio Manager directs users to the **content** that they are looking for with a direct **link** to the RioPort.com web portal, and allows them to completely manage that acquired **content** (or tracks from their own audio CD collection) through their own personal jukebox, which includes a media player, database manager and download agent. The new Rio software is PC compatible and MetaTrust(TM) ready, addressing the concerns of **digital** content owners by delivering persistent protection from piracy.

"Rio Audio Manager breaks away from the first, confusing user interfaces to provide a powerful and intuitive means to completely manage digital audio content - from acquisition to playback management," explained David Watkins, president of RioPort, Inc. "With built-in digital rights management, a direct connection to the RioPort site for quickly garnering content, and a number of industry-leading design features, Rio Audio Manager provides the next generation in digital audio playback."

Direct Connection to the Web Without Leaving the Application RioPort's Rio Audio Manager features an integrated Web browser that connects directly to the RioPort.com digital audio gateway, where fans will find the Internet's best selection of downloadable music, spoken audio programming, consumer services and products. In addition to connecting to RioPort.com, users can easily access Internet search engines and other sites of interest through Rio Audio Manager.

Store and Organize Content from the Web or Your Own CD Collection Whether the content resides on the PC, a peripheral like the Rio player, an external network or the Web, RioPort's Rio Audio Manger software helps users easily locate and playback what they want to hear. In addition to downloads from the Internet, users can quickly record and transfer tracks from their own CD collection into MP3 or MS Audio files(a), a process known as encoding, for storage and playback on their PC or a Rio-compatible player. Rio Audio Manager allows for unrestricted encoding quality so users can produce the highest quality CD capture at 128Kbps or more. RioPort compatible product owners can encode tracks from their CD or .Wav files with unlimited encoding available with registration at the RioPort.com website.

Along with its powerful searching, locating and playback functions, the new Rio software gives users great leverage to customize packages of **music** and **other** audio **content** in MP3,

Audible, WAV and legacy MP2 formats. All **digital** audio tracks are stored in the software's searchable database, which also supports **digital** tracks embedded with ID3 tags to provide information such as song titles, lyrics, and CD art. People can organize tracks from the database into a personal jukebox that they can easily scan to find the exact song title or audio bite they're searching for. These **digital** audio tracks can then be mixed into personalized playlists and albums that they can playback from their PC or portable music device.

Seamless Integration with RioPort Compatible Hardware

Rio Audio Manager's powerful **digital** audio player and mixer allow for seamless playback on Rio-compatible hardware. Users can download their tracks, custom playlists and albums to their portable device for playback on the go and even transfer data files between their portable device and their PC. Rio Audio Manager also tracks available memory when used with Rio portable playback devices.

Get it at RioPort.com

The Rio Audio Manager software will be bundled for free with RioPort's newly announced 64MB Rio 500, available in August, and other Rio-compatible devices. Registered owners of the original Rio PMP 300 can download the new software for a nominal charge at www.rioport.com. Those who simply want to use the application to manage playback from their PC can also download a limited demo version or the complete version for a small fee at the RioPort.com site.

RioPort, Inc.

RioPort, Inc. is redefining **digital** audio by delivering an integrated platform for acquiring, managing and experiencing music and spoken audio programming from the Internet. RioPort delivers an extensive selection of **digital** music and spoken audio programming through its RioPort.com **digital** audio gateway, full content management with its Rio Audio Manager software and cutting-edge playback solutions with its Rio brand players, which are licensed to third-party companies. Company headquarters are in San Jose, Calif., where its business development, engineering and marketing teams are located. RioPort's artist relations, content aggregation and online creative team is based in Los Angeles, and its portable player design team is based in Korea.

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(a) Editor's Note: The MS Audio format is not supported by the Rio 500 playback device

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8/9/20 (Item 20 from file: 20)

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RioPort Spins Deal With Amplified.com to Deliver Popular Music and Custom CDs On RioPort.com

BUSINESS WIRE

June 24, 1999

Journal Code: WBWE? Language: English? Record Type: FULLTEXT

Word Count: 1328

SAN JOSE, Calif.--(BUSINESS WIRE)--June 24, 1999--RioPort, Inc., a wholly owned subsidiary of Diamond Multimedia Systems, Inc. (Nasdaq:DIMD), today announced that it has entered into a strategic agreement with Amplified.com, a leading business-to-business provider of Internet services to the music industry, to provide custom-burned CDs containing promotional and for-purchase digital audio files found on RioPort's premier digital audio gateway.

Under the terms of the agreement, Amplified will provide a service for a small fee that allows RioPort users to build custom CDs of promotional content currently available for free from RioPort.com and other participating content providers. Additionally, RioPort will provide its customers with access to Amplified.com's extensive music library, including access to the company's spotlighted artist recommendations and custom music collections. RioPort.com customers will be able to purchase music singles by direct digital download, or they may select a compilation of songs and receive a custom CD by mail.

"This is a boon to the **digital** audio enthusiast who wants access to our broad array of free and promotional content, but simply do not have access to a high-speed or broadband connection. This furthers our strategy of making RioPort.com the premier destination for music fans worldwide looking to sample, purchase and enjoy the most varied and comprehensive selection of **digital** entertainment available on the Internet," said J.D. Heilprin, publisher and general manager of RioPort, Inc. "Now, with our newly established relationship with Amplified.com, RioPort is even better positioned to deliver cool music content from an array of artists and content publishers."

RioPort.com is an integrated **digital** audio destination, enabling people to obtain music and spoken word content, including **digital** novels, audio newspapers, radio shows and television transcripts; and buy cool new products like portable **digital** audio players, CDs and accessories from a variety of manufacturers. People can also access personalized services; download RioPort's exclusive Rio Audio Manager software for managing and playback of all their **digital** audio (see announcement also made today); and become members in a community of artists and **digital** audio fans - without ever leaving the site.

"As a leading provider of Internet services to top music retailers, Amplified.com is very pleased to be working with RioPort to bring digital music content to the masses," said Shachar Oren, vice president of A & R and label relations for Amplified.com. "Whether a RioPort.com customer is looking for jazz, country or rock `n' roll, Amplified.com's music library offers an amazing selection of copyright protected songs from thousands of artists that can be downloaded individually or delivered as a custom CD."

Along with the addition of music **content** by Amplified.com, RioPort customers will find **links** to other legitimate **digital** audio aggregated from the best sources on the Internet, including companies like EMusic, Audible, Inc., CDuctive, Riffage.com and MP3.com, as well as independent record labels and individual artists. Content is intuitively organized on the portal, making it extremely quick and easy for fans to find exactly what they are searching for.

RioPort, Inc.

RioPort, Inc. is redefining **digital** audio by delivering an integrated platform for acquiring, managing and experiencing music and spoken audio programming from the Internet. RioPort delivers an extensive selection of **digital** music and spoken audio programming through its RioPort.com **digital** audio gateway, full content management with its Rio Audio Manager software and cutting-edge playback solutions with its Rio brand players, which are licensed to third-party companies. Company headquarters are in San Jose, Calif., where its business development, engineering and marketing teams are located. RioPort's artist relations, content aggregation and online creative team is based in Los Angeles, and its portable player design team is based in Korea.

Amplified.com

Amplified.com, the world's first **digital** distributor, provides a variety of Internet services for the music industry. Those include encoding, hosting, custom CD manufacturing, storage, song downloads (in a variety of formats), sound samples, content aggregation and a leading

network of online music retailers. The company provides trusted payments of royalties and fees to the content owners and publishers, and is focused on providing the highest quality of service to its retail customers. Amplified was founded in 1994, and has provided its Music Previews for customers such as Billboard Online for many years. In 1998, the company added its `Amplified One-Source' to help the music industry realize the new revenue opportunities from digital distribution and custom CDs.

About Diamond Multimedia

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8/9/21 (Item 21 from file: 636)

04382810 ? ?**Supplier Number:** 55177266 ? ? ? ?

American Companies in Japan: SOFTWARE AND INFORMATION SERVICES.

Japan-U.S. Business Report, v 1999, n 355, p NA

April 29, 1999 **ISSN:** 0888-5702

Language: English ? ?Record Type: Fulltext

Document Type: Newsletter; Trade

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Consumers in Japan soon will be able to shop for a car by PC. MICROSOFT CORP., SOFTBANK CORP.and YAHOO! JAPAN CORP.have agreed to localize Microsoft's MSN CarPoint on-line automotive service. The launch date is the fourth quarter of this year. A still-unnamed joint venture in which the software giant has a 40 percent interest with Softbank owning 50 percent and Yahoo! Japan 10 percent will convert the American version of CarPoint into Japanese and add content and services specific to the domestic market. Microsoft will provide the technology and the interface design for the service, which will include DealerPoint, a system designed to help car and truck dealers track and manage their Internet customers. Featured on both the MSN Japan and the Yahoo! Japan Web portals, the on-line car-buying service should be available to about 80 percent of Japan's on-line consumers.

DELL COMPUTER CORP.'s local arm has buffed up its e-commerce operations with the help of INFOSYS TECHNOLOGIES LTD. That Fremont, California company first enhanced the operations of the direct marketer/build-to-order PC maker by integrating a Japan-specific configuration and pricing data base

with its on-line ordering system. The second phase focused on improving the functionality and the responsiveness of Dell's Japanese Web presence. By 2000, Dell and all of its subsidiaries around the world expect to conduct half of their business on-line.

Leveraging the Web's ability to reach even remote areas and its 24-hour availability, PREVIEW SYSTEMS, INC. and exclusive marketing partner SONY MARKETING (JAPAN) INC. (see Japan-U.S. Business Report No.350, November 1998, p.22) have signed up the first customer for their Internet-based electronic software distribution system. Tokyo-based VECTOR K.K. is using the ESD system to launch a new business delivering demonstration software packages over the Web. Cupertino, California-based Preview Systems' Ziplock ESD not only can be used to deliver software via the Internet but also is adaptable to almost any kind of electronic content, such as digital music and images.

COMMERCE ONE, INC. is partnering with NIPPON TELEGRAPH AND TELEPHONE CORP.to develop a business-to-business electronic marketplace. The telecommunications heavyweight has licensed the Walnut Creek, California firm's Commerce Chain Solution package as the basis for a Web site for trading goods and services. The software will automatically handle purchase authorization, accounting and contractual procedures. The partners are touting the potential of the B2B site to cut purchasing cycle times, reduce the costs of purchasing operations and increase firms' buying power.

Also targeting the B2B market, INFORMATION RESOURCES ENGINEERING, INC. and partner OSAKA MEDIA PORT CORP.(see Japan-U.S. Business Report No.347, August 1998, p.21) have begun offering VPN (virtual private network) services via OMP's network and communications circuits. They describe OMP's SafeNet Services as the cornerstone of a secure, tight linkage between a company and its suppliers and customers, especially for those interested in transitioning to e-commerce. Earlier this year, Baltimore-headquartered IRE formed a strategic alliance with Osaka Media Port and MITSUBISHI CORP.to share know-how related to Internet security. Industry sources expect the three companies will begin offering value-added VPN services.

The long-standing joint venture between GE INFORMATION SERVICES, INC. and DENTSU INC. is offering three international network outsourcing packages. For monthly fees starting at \$6,700, INFORMATION SERVICES INTERNATIONAL-DENTSU, LTD.'s IBP service includes 24-hour network and intranet operations and network monitoring and backup services. ISID's PPP Gateway Service provides Internet access and e-mail support for monthly charges beginning at \$1,500. Also on ISID's menu are VPN Security Services. At a monthly cost ranging anywhere from \$1,700 to \$10,000, ISID not only will operate and maintain a VPN but will build it as well.

Acknowledging that a growing number of e-commerce servers are powered by Linux, CYBERCASH, INC. has ported its Internet payment conduit to the open-source operating system. CashRegister for Linux connects a virtual or real storefront to CyberCash's payment services, enabling businesses to handle secure, real-time payments in person or via the Web. The Reston, Virginia company's subsidiary, in which 11 Japanese companies, mainly banks, are partners, offers a variety of on-line payment solutions.

Through a tie-up with JAPAN TELENET CO., LTD., Naperville, Illinois-based MERCANTEC, INC. has rolled out a localized version of its virtual store design and operation package, SoftCart. SoftCart 4.0/J gives a potential Web merchant a very simple point-and-click interface for building an e-commerce Web site. It also provides the tools to operate and maintain it. Japan Telenet, which helped Mercantec localize the package, leases SoftCart 4.0/J for \$250 a month. It is aiming to have 1,000 virtual stores in place by April 2000, generating revenues of \$1.5 million the first year.

Making it clear that it thinks the Web browser battle is still on, MICROSOFT CORP.has released a Japanese-language version of Internet Explorer 5.0. The latest iteration of IE sports even closer integration with the Windows operating system as well as a bevy of new features aimed a

making Web surfing easier and simpler. As before, IE is offered as part of the Windows operating system bundle or as a free download from the Internet.

CONNECTIX CORP.of San Mateo, California has released a new version of its Surf Express Web browser accelerator through two marketing points: MEDIA VISION INC. of Tokyo and SYSTEMSOFT CO., LTD. of Fukuoka. The \$55 browser utility speeds up Internet searches as well as the displaying of Web pages. It is the only accelerator compatible with AMERICA ONLINE, INC.'s Web browser.

The developer of a competing browser accelerator, KISS SOFTWARE CORP., is broadening the market appeal of its Speed Surfer by billing the package as an all-in-one Internet toolbox. The Newport Beach, California company's product includes modules that protect Web sites from unauthorized hacking, monitor modem use and cut off unauthorized connections, scan all virtual ports into the network for "back door" attacks and give users full control over "cookies" stored on their systems by external Web sites. Kiss Software's distributors WINNINGRUN SOFTWARE, INC. and SUPREME RESOURCES INTERNATIONAL have struck a deal with CANON SALES CO., INC. to bundle Speed Surfer-J and MEDIA VISION INC.'s Web Driver browser utility with the COMPAQ COMPUTER CORP.and IBM JAPAN LTD. PCs it handles. Kiss Software is a wholly owned subsidiary of ESYNCH CORP.

The subsidiaries of router hardware king CISCO SYSTEMS, INC. and VERISIGN, INC. have joined forces to offer **digital** certificate-based VPN solutions to businesses. The two have bundled Cisco's network security know-how with VeriSign's OnSite for IPSec for firms interested in engaging in secure e-commerce transactions. The companies hope to generate revenues of \$8.3 million over the next two years based on their secure VPN package.

Separately, VERISIGN, INC.'s subsidiary has selected BEING CO., LTD. of Tsu, Mie prefecture to distribute its personal **digital** certificate security software. The Mountain View, California firm's **Digital** ID plugs into a user's browser or e-mail software, automatically encrypting messages and sealing them with the user's **digital** "signature." Being expects sales to hit 10,000 units the first year.

The Japan unit of RSA DATA SECURITY, INC. has rolled out two localized products targeting the needs of Java-language developers. RSA BSAFE SSL-J gives programmers the native Java tools to link the San Mateo, California firm's encryption engine with the Secure Sockets Layer Web standard, while BSAFE Crypto-J does the same for any Java-based application. The two programs start at \$20,800. They should find a ready market because e-commerce is booming in Japan.

Santa Cruz, California-based METAWARE INC. has picked SOFTBOAT INC. (formerly Lifeboat Inc.) to handle sales and support of its full line of software development tools on an exclusive basis. The Tokyo company will license MetaWare's High C/C++ and Embedded C++ compilers for the ARM, PowerPC and x86 instruction sets, plus its SeeCode Debugger for the same target processors and the company's Statistical Profiler software performance analysis tool.

As videogame hardware makers race to introduce their next-generation units, game developers will be using METROWERKS, INC.'s software tools to write titles that take full advantage of the hardware advances. The San Jose, California company has signed pacts to port its CodeWarrior integrated development environment, MIPS ISA 4 and SH-4 tools for C/C++ to NINTENDO CO., LTD.'s Nintendo 64, SEGA ENTERPRISES, LTD.'s Dreamcast and SONY CORP.'s PlayStation platforms. All three software development kits run under Windows 95/98/NT, allowing game writers to begin creating titles before the hardware makers debut their next generation of systems. The agreements also reduce the roadblocks to porting games among the three systems, a plus for software developers.

IBM JAPAN LTD. is looking for wide distribution of its speech-recognition software development kit for Windows-based PCs running

off the new Pentium III processor. ViaVoice 1.5 and related programs allow software developers to make their programs speech-aware. They are available for download at no charge from IBM Japan's Web site.

Working closely with distributor and software solutions provider NETSERVE INC., the subsidiary of PROGRESS SOFTWARE CORP.has rolled out a native Japanese version of its application development, deployment and management software. Applivity v3 is a Java-based application server and integrated development environment for building Web-based business software. Version 3's interface and output not only are entirely in Japanese, but it offers tools to handle thin client needs, legacy data connectivity, support for the latest Java and Enterprise Java Beans standards and high reliability and scalability. NISSHO IWAI CORP.and INES CORP.are investors in Progress Software's subsidiary along with the Bedford, Massachusetts parent.

UNIFY CORP.'s VISION Web application builder/server package was chosen by MIROKU JYOHO SERVICE CO., LTD. to develop its Management Intelligence Core System for Networks enterprise resource planning solution. The Tokyo-based custom software developer chose the San Jose, California firm's VISION AppBuilder and VISION AppServer because of their simple interface, built-in support for Java and HTML and cross-platform compatibility. Miroku Jyoho Services' MICSNET package is independent of both customers' operating systems and back-end data bases. The first three MICSNET modules cover finance, payroll and sales management.

Southfield, Michigan-based PROFORMA CORP.has named COMPUTER INSTITUTE OF JAPAN, LTD. to sell its business process modeling software. ProVision Workbench 3.1 integrates workflow, use-case modeling and object modeling to create a flexible and seamless environment for visualizing and planning a company's operations and activities. CIJ, an independent software developer with two U.S. subsidiaries (see Japan-U.S. Business Report No.353, February 1999, p.10), helped with the localization of ProVision Workbench. It will provide integration and after-sale support.

The operating system software for the S/390 family of mainframe computers has been updated. IBM JAPAN LTD.'s OS S/390 v2 Release 7 is optimized for server operations, handling TCP/IP transactions up to 15 times faster than previous versions and offering built-in network management tools. Lease fees for the new system software begin at \$2,800 a month. IBM Japan already is promising that Release 8 will have even better server management tools when it debuts in the fall.Separately, IBM JAPAN LTD. has decided to back the Linux open-source operating system. Not only will the subsidiary of the world's premier computer company offer contract-based hardware and software support for Linux, but it will preinstall RED HAT SOFTWARE, INC.'s latest Linux OS package on its PCs at a user's request.

INTEGRATED SYSTEMS, INC.'s pSOSystem embedded, real-time operating kernel has been chosen by CASIO COMPUTER CO., LTD. to run its new QV-7000SX digital camera. pSOSystem, Casio said, simplified software development for the digital camera, which can take both digital still images and short movies. The company will base future digital imaging products on the Sunnyvale California firm's real-time OS, which is the most widely used such product in the embedded marketplace today.

To meet the robust demand for software that integrates Unix and Windows systems, WRQ, INC. of Seattle continues to bring out localized versions of its Reflection family of middleware (see Japan-U.S. Business Report No.353, February 1999, p.25). The latest addition the \$670 or so Reflection X v7.1 terminal emulator lets Windows-based PCs act as terminals for a wide range of Unix-based hosts. competing product is being offered by the maker of Windows itself. MICROSOFT CORP.'s \$250 Windows NT Services for Unix Add-On Pack/Japanese lets computers running the two operating systems communicate and exchange data.

Network administrators now have access to ELRON SOFTWARE INC.'s award-winning CommandView family of Internet gateway management utilities

through distributor ADVANCED RESEARCH OF TECHNOLOGIES, INC. The Cambridge, Massachusetts firm's firewall, Internet access manager and bandwidth manager protect networks from Web-based hacker attacks, limit access to the Internet to authorized users and prioritize Internet access for critical applications.

NETWORK ASSOCIATES, INC.'s subsidiary has released new versions of its popular antivirus network utilities. VirusScan Enterprise Edition 4.02, which costs \$815, and the \$1,000 NetShield 4.02 protect clients and servers, respectively, from hostile computer programs. The programs are up to date, able to prevent damage from the Melissa and the Worm.ExploreZip programs that recently caused problems around the globe.

To maintain its hold on the enterprise storage market, EMC CORP.has developed a data-management utility for Fibre Channel network topologies. EMC Volume Logix protects information residing in multiple files by limiting the ability of each host server in the network to "see" only those volumes for which it has proper authorization. This ability to control host server access to data becomes especially important as a company implements a SAN (storage area network). The Hopkinton, Massachusetts company's subsidiary priced Volume Logix around \$18,800.

Following the successful introduction of a Windows NT version of its product (see Japan-U.S. Business Report No.345, June 1998, p.19), LEGATO SYSTEMS, INC. has ported its NetWorker network backup management utility to systems running SUN MICROSYSTEMS, INC.'s Solaris operating system. In addition, through its subsidiary, the Palo Alto, California firm continues to localize all its software offerings for the Japanese user and to work with Japanese systems integrators to adapt NetWorker for custom environments.

DANTZ DEVELOPMENT CORP.has its eye on the same market. The Orinda, California company recently released a localized version of its Retrospect 4.1 network backup utility. Targeting small to midsized firms that lack in-house computer expertise, Retrospect 4.1 automates the configuration of backup clients and storage media, the creation of backup scripts and the reporting of backup activities. It lists for \$270.

ASTEA INTERNATIONAL, INC. appointed MEMOREX TELEX JAPAN LTD. to distribute its ServiceAlliance customer relationship management package. Memorex Telex selected the Horsham, Pennsylvania firm's package for its own use after in-the-field testing. It expects ServiceAlliance's functionality, ease of customization and cost savings not to mention its full conversion to Japanese to appeal to customers.

New York City's RELAVIS CORP.(formerly MFJ International) partnered with CIS CORP.of Tokyo to bring a localized version of its OverQuota sales force automation and CRM software to local users. OverQuota provides a full range of front-office functions: relationship, opportunity and channel management, marketing support, remote/mobile access, team-based selling and sales forecasting. Besides being Internet-friendly, OverQuota works with LOTUS DEVELOPMENT CORP.'s Notes/Domino groupware, back-end data bases such as INTERNATIONAL BUSINESS MACHINES CORP.'s DB2 and ORACLE CORP.'s family of products and even some ERP packages.

The 100th order from Japan for MOSAIX CORP.'s self-named call management software has been booked by distributor ITOCHU TECHNO-SCIENCE CORP. The latest version of the Redmond, Washington company's product will be installed by DAI-TOKYO FIRE & MARINE INSURANCE CO., LTD. The Tokyo property and casualty insurer was Mosaix's first local customer in mid-1991. It says that it will continue to adopt call-center technology aggressively. The new version of Mosaix will allow 36 of Dai-Tokyo's insurance agents to handle more than 100,000 calls each per month.

Competition in the enterprise management systems business continues to heat up.COMPUTER ASSOCIATES INTERNATIONAL, INC., for example, is trumpeting the recent selection of its Unicenter TNG package by SEGA ENTERPRISES, LTD. The videogame maker said that it picked the Islandia, New York firm's EMS for its platform independence and ability to provide comprehensive management for the company's more than 900 amusement

facilities throughout Japan. Sega and CA are cooperating on extending Unicenter's reach to 690 of the Japanese firm's white-collar desktops and using it to manage Sega's SAP AG R/3 applications.

HEWLETT-PACKARD JAPAN LTD. has fired back, rolling out a new version of its parent's EMS offering. HP OpenView IT/Operations 4.2 focuses on keeping business-critical applications and services running 24 hours a day. It is written for SUN MICROSYSTEMS, INC.'s Solaris operating system. MITSUI & CO., LTD. and TOSHIBA CORP.help HP Japan sell, install and support the OpenView family. Licenses for HP OpenView IT/Operations 4.2 start at \$52,500 and \$130 per node.

An enterprise application integration package is available from the new, wholly owned Tokyo subsidiary of SOFTWARE TECHNOLOGIES CORP. The Monrovia, California company opened STC JAPAN K.K. to provide sales, support and training for its DataGate integration suite. DataGate supports multiple messaging capabilities, including data conversion, translation, transformation, encryption, monitoring and routing. It also links with more than 20,000 legacy data base systems, ERP packages and other standards-based applications.

FOGLIGHT SOFTWARE, INC. (formerly Resolute Software, Inc.) of Pleasanton, California has brought its application performance management package to Japan with the help of the CAPTECH K.K. subsidiary of CAPITAL TECHNOLOGIES INTEGRATION INC. of Emeryville, California. RAPS v4.2 automates and centralizes application performance management functions, simplifying the tasks of keeping critical programs running, monitoring and reporting on application service levels and allowing administrators to forecast future IT requirements.

Pursuing its vision of becoming a one-stop "knowledge management" software company, LOTUS DEVELOPMENT CORP.'s subsidiary has released updates of the popular Notes/Domino groupware family. Notes R5, which costs \$65 per client, and Domino R5, which starts at \$830, not only offer full support for Internet connectivity and distributed computing but provide better integration with ERP programs as well.

Also touting its new persona as a vendor of enterprise information management systems, SEAGATE SOFTWARE, INC. has updated its popular Seagate Crystal Info package and renamed it Seagate Info 7. The integrated suite of business intelligence tools to analyze and share information throughout a corporation includes report design, ad hoc query, advanced SQL editing, OLAP (on-line analytical processing) cube building, multidimensional analysis, report viewers, schedulers and processing servers.

The Linux bandwagon continues to attract new riders, especially among developers of business applications. IBM JAPAN LTD., for example, recently announced that it would port its mainstay DB2 relational data base to the open-source, Unix-based operating system.Also getting on for the ride is SYBASE, INC. The Emeryville, California company not only has tweaked its Adaptive Server Enterprise 11.9.2 to run on Linux systems, but its subsidiary plans to offer technical support to users of ASE for Linux when it goes on sale in June. An ASE for Linux five-user license with technical support will be offered at a promotional price of \$830 compared with \$740 for a license without it.

A historical data base engine developed by FAME INFORMATION SERVICES, INC. is at the heart of a new financial information service developed by NIHON KEIZAI SHIMBUN, INC. and its QUICK CORP.affiliate. The new AMSUS service combines Quick's real-time data distribution platform, QUICK-IS, and Nikkei's NEEDS historical data with the New York City firm's FAME data base engine. Via a simple graphical interface, AMSUS subscribers can analyze and manipulate historical financial information on Japanese firms.

SEMICONDUCTOR LEADING EDGE TECHNOLOGIES INC. the Japanese semiconductor industry consortium researching 300-mm (12-inch) wafer technologies that is better known as SELETE has licensed a cost and resource evaluation solution from WRIGHT WILLIAMS & KELLY of Pleasanton, California. WWK's Factory Commander system will be installed at SELETE's Yokohama headquarters to project the costs and the revenues of

transitioning to and operating a 300-mm wafer fabrication plant. SELETE is familiar with WWK's products, having used its Two Cool package over the last two years to hold down the growth of its equipment budget.

The subsidiary of Cary, North Carolina-based SAS INSTITUTE INC. has released a credit and financial risk management package in English, with the Japanese version set for introduction in June. The \$500,000 Risk Dimensions gives large companies a complete toolbox for evaluating and managing their market and credit positions, including modules for mark-to-market valuation, scenario and sensitivity analysis and value at risk using several different methods. Risk Dimensions is the centerpiece of a new risk-management consulting and services unit within SAS Institute's local unit. This business will target financial institutions as its first customers, hoping to sign up 10 of them.

The market for ERP software continues to expand. For instance, SUN MICROSYSTEMS, INC.'s marketing arm, hoping to capitalize on the popularity of SAP AG's R/3 ERP package, has put together a menu of R/3 software and services, including setup or upgrade of the complex program, operation and maintenance, performance analysis and data backup design. For its part, HITACHI, LTD. has added ORACLE CORP.'s ERP package, Oracle Applications, to its portfolio of ERP offerings. These include SAP R/3, BAAN CO.'s BAAN IV and Hitachi's homegrown, low-cost GEM Planet. By boosting its ERP stable to four, Hitachi hopes to boost revenues from this business line to \$83 million for the first half of FY 1999.

Meanwhile, SSA, INC.'s subsidiary and HITACHI, LTD. have opened a training and support center in Tokyo for customers running the Chicago firm's BPCS (short for Business Planning and Control System) ERP package on Hitachi mainframes (see Japan-U.S. Business Report No.352, January 1999, p.25).....At the same time, SSA, INC.'s local marketing outfit has brought out a version of BPCS tailored for the Internet age. eBPCS extends the ERP architecture throughout a manufacturer's supply chain and financial links, integrating easily with third-party software and legacy systems to provide seamless business process integration.

MARCAM CORP.is promoting sales of its Protean ERP package through partner NEC CORP.The Newton, Massachusetts company and NEC have been working together for some time to adapt and expand Protean to meet the special needs of Japanese businesses. The latest twist is to add an accounting module to offer consolidated financial management functions, features being tested by TEIJIN LTD. NEC hopes to boost the number of companies using Protean to 70 in the current fiscal year from about 50 in FY 1998.

Continuing to expand its distribution channels, supply chain management software developer I2 TECHNOLOGIES, INC. recently signed NIPPON STEEL CORP.and a KOBE STEEL, LTD. affiliate to market its Rhythm family. They join ORACLE CORP.'s subsidiary as distributors. i2's product is at the core of a collaborative supply and demand planning system that several major Japanese companies are developing for the retail sector (see Japan-U.S. Business Report No.354, March 1999, p.28).

WARNER-LAMBERT CO. is helping its subsidiary get into fighting shape by installing SCM software from MANUGISTICS, INC. The maker of pharmaceuticals, personal-care products and confectioneries will implement the Rockville, Maryland firm's SCM solution in all stages of operations from materials procurement to shipment, with the goal of reducing inventory costs by 20 percent and increasing inventory turnover by 30 percent. The system will be installed first in Warner-Lambert's shaving products department before being extended to cover other parts of the business.

NIKE INC.'s Japan unit has the same idea, installing a predictive retail and inventory management system developed by a division of San Diego, California-based HNC SOFTWARE INC. HNC Retek Retail Solutions and integrator ITOCHU TECHNO-SCIENCE CORP.installed the first Japanese version of the Retek Merchandising System at Nike's operations in just six months and on budget.

A fully localized version of COCREATE SOFTWARE INC.'s latest product

data management solution is available through its subsidiary. WorkManager 5.1 puts the workflow process into Cyberspace with its Web-based features, including data base **server** monitoring and circular **link** checking. The \$15,800 PDM package accepts data from several mechanical design programs, such as SolidDesigner and ME10, and integrates with ERP packages like SAP R/3. Sales of 40 copies are projected for the first year. Fort Collins, Colorado-based CoCreate is a HEWLETT-PACKARD CO. company.

TAYLOR MANUFACTURING SYSTEMS, INC. has completed installation of its advanced manufacturing planning and scheduling system at one of AIWA CO., LTD.'s plants. The Atlanta firm's TESS program was integrated with SSA, INC.'s BPCS ERP package to help Aiwa plant managers increase manufacturing efficiency and facilitate short-term production forecasting. In time, TESS will be integrated with BPCS at all of Aiwa's consumer electronics facilities around the world.

Also in the area of manufacturing execution software, SEQUENCIA CORP.(formerly PID, Inc.) has signed a deal with MORINAGA MILK INDUSTRY CO., LTD. to install its OpenBatch recipe—management software at multiple Morinaga facilities. The Phoenix, Arizona firm's product first will be used to control the mixing and cooking of cheeses at a Morinaga plant near Yokohama. OpenBatch will be extended to the production of other products if all goes well. Morinaga makes many products under license from KRAFT FOODS, INC.

Users of Windows-based PCs have two new utilities to make life simpler. SYMANTEC CORP.'s subsidiary has released a localized version of its latest disk troubleshooting and repair package, Norton Utilities 4.0 for Windows 95/98. At \$80, the new version is 17 percent less expensive than the one it supersedes, a factor behind Symantec's sales goal of 150,000 units the first year. Meanwhile, a function-key customization program written by KISS SOFTWARE CORP.has been translated into Japanese by WINNINGRUN SOFTWARE, INC. for sale under its Software Magic brand name. ShortCuts 2.0 allows users to define macros for up to 42 different keys, including such common Web-surfing functions as going to favorite Web sites or pages.

On the Windows CE front, LOTUS DEVELOPMENT CORP.'s unit has rolled out an information management application that runs on Windows CE personal digital assistants and other handheld devices but is not linked to its Notes/Domino groupware. The \$30 Organizer 2000 is built around a schedule manager. It also includes modules to exchange data with host systems through Internet or cellular phone connections.

EASTMAN KODAK CO.'s local operation is offering a Japanese version of Kodak Picture Shot, a **digital**-image viewing utility for Windows CE devices. NEC CORP.has agreed to bundle the utility with its Mobile Gear II line of PDAs.

In a potential boost for Windows CE, MICROSOFT CORP.and NTT MOBILE COMMUNICATIONS NETWORK, INC., Japan's biggest cellular services provider, have signed a research agreement to adapt the operating system for use in cell phones. The first upgrade planned is to give Windows CE the power to handle changes in the quality of cellular connections. Then the two will focus on developing e-mail, appointment and other information services delivered through Windows CE-powered mobile terminals.

Add another major win for PARAMETRIC TECHNOLOGY CORP.'s Pro/ENGINEER mechanical design automation package. YANMAR DIESEL ENGINE CO., LTD. has contracted to spend \$40 million over the next six years on Pro/ENGINEER software and services. The Osaka-based engine maker said that it decided to standardize on Pro/ENGINEER because the package offered all the features that the company needs to streamline its production processes while expanding global market share. HITACHI, LTD. also picked PARAMETRIC TECHNOLOGY CORP.'s Pro/ENGINEER system to enhance the competitiveness of its Mito Works elevator and escalator manufacturing operations. The conglomerate will spend \$2.4 million on Pro/ENGINEER and PTC consulting time to implement a design-through-manufacturing system.

AUTODESK, INC. has reworked its flagship 2D CAD product with the millennium in mind. AutoCAD 2000, the successor to AutoCAD v14, brings full integration with the Internet to the popular CAD program for PCs. AutoCAD 2000 also will become the keystone of a new family of specialized CAD programs that provide complete, vertical solutions to specific industries. Autodesk's subsidiary has priced AutoCAD 2000 at \$5,000, although companies upgrading from an earlier version of AutoCAD will pay only \$830.

Even as it revamps its entire product line, THINK3 (formerly CadLab, Inc.) of Santa Clara, California is maintaining its ties with exclusive distributor TOYOTA CAELUM, INC. That company, a joint venture between TOYOTA MOTOR CORP.and MITSUI ENGINEERING & SHIPBUILDING CO., LTD., has put on the market the final iteration version 9 of think3's Eureka Gold low-cost 3D CAD program for Windows 95/98/NT systems. It is priced at \$7,500. Seven companies resell think3's products (see Japan-U.S. Business Report No.349, October 1998, p.26). They expect to sell 1,000 copies of the latest Eureka Gold program in the initial year.

Competing 3D CAD software maker COCREATE SOFTWARE INC. has signed up another distributor for its SolidDesigner package. FUJITSU KYUSHU ENGINEERING LTD. will sell and support the \$1.3 million SolidDesigner. It is looking for sales of 100 units a year. The FUJITSU, LTD. affiliate joins four other distributors of the Fort Collins, Colorado firm's products. They include OBIC BUSINESS CONSULTANTS CO., LTD. and OTSUKA SHOKAI CO., LTD.

Market newcomer VISIONARY DESIGN SYSTEMS, INC. has given exclusive distribution **rights** to its mechanical CAD program to HITACHI ZOSEN INFORMATION SYSTEMS CO., LTD. HZIS, described as Japan's foremost MCAD systems integrator and value-added reseller, will help to translate the Santa Clara, California firm's IronCAD package into Japanese as well as market and support the software through its extensive existing network. IronCAD realizes Visionary Design's "e-Engineering" approach by integrating the complete design chain through the Web.

Englewood, Florida-based MERRY MECHANIZATION, INC. has brought its low- cost 3D CAD system for sheet-metal stamping to the Japanese market through its Osaka subsidiary. Sheet Lightning, sold as SMP/IS Master Series in the United States, helps engineers transform 2D or 3D CAD drawings created with other software packages into the patterns, molds and related components needed to turn sheet metal into the desired product.

A utility from ACTIFY, INC. allows users of its 3D View program to import and display CAD drawings from a wide range of sources, including CATIA, IGES, STL, VDA-FS, Parasolid, SolidWorks, DXF/DWG, ISO and G-Code. Distributor DATA DESIGN, INC. is asking only \$240 for the San Francisco-based company's product.

Electronic design automation leader CADENCE DESIGN SYSTEMS, INC. and FUJITSU, LTD. have integrated their ASIC design tools to make it easier to produce single-chip systems. The strategic development partners combined the San Jose, California firm's System Level Constraint flow design process with Fujitsu's proprietary design tools. A new method of constraint passing with advanced timing-driven placement, routing and physical optimization techniques shortens the design time for system-on-a-chip devices by as much as 30 percent. Moreover, the technique is applicable to 0.25-micron to 0.18-micron process technologies.

Also targeting the design of chips with more than 100 million transistors is start-up Y EXPLORATIONS, INC. of Irvine, California. It assigned marketing **rights** to its LSI design support system to SOLITON SYSTEMS K.K. The Tokyo firm will install and support the user-friendly package, which integrates intellectual property cores into complete one-chip systems at a cost of around \$250,000.

A new static noise analysis tool from CADMOS DESIGN TECHNOLOGY, INC. is available locally through MARUBENI SOLUTIONS CORP. The San Jose, California firm claims that PacifIC is the first comprehensive noise analyzer for deep-submicron designs, allowing designers to validate highly complex chips before reaching silicon. The package starts at \$319,200. Nonetheless, because of the CadMOS package's unique capabilities, Marubeni

Solutions expects to sell 20 in the first year of marketing.

Building on a February 1998 tie-up, MENTOR GRAPHICS CORP.licensed big PCB design tool maker ZUKEN INC. to sell its Interconnectix high-speed PCB design software. Yokohama-based Zuken and Wilsonville, Oregon-headquartered Mentor Graphics jointly will develop an interface that transparently exchanges data between Zuken's CR-5000 PCB design package and Interconnectix.

New partners VERIBEST, INC. of Boulder, Colorado and CADIX INC. are offering alternative PCB design systems. The Tokyo company, Japan's number-two PCB tool supplier, will market and support both its own Circuit Assembly CAD (SFX Series) and, on an exclusive basis, VeriBest's Expedition Series for **digital** and mixed-signal boards that run on Windows NT systems instead of expensive engineering workstations. The combined package is priced from \$50,000. Boulder, Colorado-based VeriBest will continue to support its PCB products locally and to sell its computer-aided engineering tools directly.

Both home and business users now have access to PHOTODISC, INC.'s library of more than 75,000 digitized stock photographs, thanks to a nonexclusive distribution agreement with AMANA CORP., a leading vendor of custom and stock images. The pact allows amana to distribute PhotoDisc's more than 160 CD-ROMs of royalty-free stock images as well as to burn custom-order discs of images drawn from the Seattle company's image resources. PhotoDisc has a Tokyo sales office but uses distributors to reach a broader market

ALGOREX, INC. has picked NTT ADVANCED TECHNOLOGIES CORP.to sell its telecommunications network design software. The San Francisco firm's Algoware family of software tools lets engineers easily build wireless and wired **digital** communications systems using Algorex's ready-to-use algorithms. The package then analyzes and evaluates the systems from various standpoints, such as robustness.

Preparing to provide the telephone service of the future, INTER-TEL, INC. is offering the latest version of its Internet protocol telephony gateway through NTT INTERNATIONAL CORP.and NTT COMMUNICATIONWARE CORP.With help from these two companies, the Phoenix, Arizona firm's Vocal'Net IP Gateway is compatible with the Signaling System 7 standard protocol used in existing telephone networks. This compatibility, which extends to NIPPON TELEGRAPH AND TELEPHONE CORP.'s switches, allows Internet telephony providers to offer such commonly expected services as caller ID, call forwarding and call blocking.

The benefits of SUN MICROSYSTEMS, INC.'s Java, Jini and JavaCard technologies will be brought to NTT MOBILE COMMUNICATIONS NETWORK, INC.'s digital cellular customers. The partners have started to integrate these technologies into NTT DoCoMo's i-mode digital cellular services network and its upcoming wideband-CDMA third-generation digital cellular system. i-mode customers can browse the Web, check their e-mail and use on-line services via specially equipped iPhones. NTT DoCoMo officials say that integrating Sun's technology will improve security for such i-mode transactions as on-line shopping and banking as well as give the i-mode system the flexibility to support future devices and services. Sun and NTT DoCoMo expect to demonstrate the first prototype of the Java technology-enabled i-mode phone this year.

In a similar deal, PUMA TECHNOLOGY, INC. has licensed its Intellisync Anywhere software to NTT MOBILE COMMUNICATIONS NETWORK, INC. for use in its i-mode infrastructure. The San Jose, California firm's program automatically keeps the information held by mobile devices in sync with that stored in master data bases. By this fall, Intellisync Anywhere will give i-mode users automatic and constant access to the latest information on things like train and airline schedules, entertainment tickets and stock prices as well as personal data such as appointments, phone numbers and addresses.Separately, PUMA TECHNOLOGY, INC., which opened a wholly owned subsidiary last summer, announced that it had selected SOFTBANK CORP.to market, distribute and support Intellisync Anywhere to corporate

Japan. Softbank also will handle relations with local value-added resellers and integrators interested in the automatic synchronization software for mobile devices.

In yet another wireless mobile communications deal, UNWIRED PLANET, INC. has licensed its Wireless Application Protocol-compatible microbrowser to MATSUSHITA COMMUNICATION INDUSTRIAL CO., LTD. This company will incorporate the Redwood City, California firm's UP.Browser into its entire line of next-generation wireless mobile phones sold under the Panasonic brand. UP.Browser currently supports GSM (global system for mobile communications), TDMA (time-division multiple access), PDC (personal digital communications), PHS and cdmaOne wireless protocols. Unwired Planet is preparing modules to support next-generation standards now under development.

GEMSTAR INTERNATIONAL GROUP LTD., big ad agency DENTSU INC. and TOKYO NEWS SERVICE LTD., the publisher of entertainment magazines, including the Japanese version of TV Guide, have formed INTERACTIVE PROGRAM GUIDE INC. to offer interactive television services throughout Japan. The joint venture hopes that the Pasadena, California firm's G-Guide Gold electronic program guide (see Japan-U.S. Business Report No.344, May 1998, p.14) will become an advertising, promotion, sponsorship and transaction platform favored by Japanese households. G-Guide Gold already allows users to view a television program guide on-screen, find details about shows, sort shows by themes or categories, and select shows for recording all by using a remote control. Gemstar has a 50 percent interest in Interactive Program Guide. Dentsu put up 42.5 percent of the firm's capital and Tokyo News Service the balance.

HEWLETT-PACKARD JAPAN LTD. has released a package designed to both improve the performance of electrocardiogram machines and simplify the process of taking ECG readings. The \$1,200 EASI software runs on HEWLETT-PACKARD CO.'s Viridia CMS family of patient monitors. It allows 12-lead ECGs to be made with only five electrodes attached to the patient. Since this is half the number of electrodes that **other** systems use, EASI provides better **data** while lightening the burden of ECG tests on both patients and administering nurses.

In a move designed to gain better control over its Asian distribution strategy, PHARMACOPEIA, INC. recently bought out equal partner TEIJIN LTD. in TEIJIN MOLECULAR SIMULATIONS INC. TMSI, established in 1992, is the distributor of MOLECULAR SIMULATIONS INC. software in Japan and elsewhere in Asia. Pharmacopeia acquired MSI in June 1998. As part of the approximately \$10 million deal with Teijin, the Princeton, New Jersey company also purchased Teijin's distribution rights to MSI software in Japan. TMSI has been renamed MOLECULAR SIMULATIONS K.K. Asia accounted for roughly 20 percent of Pharmacopeia's MSI software sales in 1998. At the same time, MOLECULAR SIMULATIONS K.K. reached an agreement in principle with RYOKA SYSTEMS INC. to make the wholly owned MITSUBISHI CHEMICAL CORP. subsidiary the exclusive distributor of its medical simulation software in Japan. Under the pact, Ryoka has agreed to boost sales of the molecular modeling, simulation and informatics software over the next two years. For the last decade, Ryoka was the main local subdistributor of MSI products.

ECHELON CORP.has announced that KINDEN CORP., OBAYASHI CORP., SHIMIZU CORP.and TAKASAGO THERMAL ENGINEERING CO., LTD. have become the newest authorized integrators of the Palo Alto, California firm's facilities control network software and hardware, LonWorks and LonPoint. Open-standards LonWorks already controls buildings, factories and facilities like dams around the world. The four engineering and construction firms will design, install and maintain LonPoint systems, which combine control hardware with LonWorks. Kinden, partnered with another Japanese firm, already has won a contract from KANSAI ELECTRIC POWER CO., INC., its top shareholder, to install LonWorks at one of the big utility's generating facilities.

To help hoteliers in Japan maximize the use of their resources, REZSOLUTIONS INC. and NEC CORP.will combine the Phoenix, Arizona firm's

RezView central reservation system with NEC's NEHOPS property-management system. The merged CRS/PMS program will give users a complete view of a hotel's room inventory. It will have a fully localized front-end based on REZsolutions' WinAI and NetREZ interfaces. Not only have the two inked a sales, service and cobranding agreement to support the new integrated system, but they also have decided to develop an Internet booking system that will link authorized local travel agents into the new network.

To better pursue the geographical information systems market, INTERGRAPH CORP.has spun out INTERGRAPH COMPUTER SYSTEM JAPAN K.K. from its wholly owned subsidiary. ICSJ has released English-language versions of GeoWeb Map, an Internet-based map search and display software, as well as GeoMedia Network, which plots out the most efficient routes for transit or transport applications. Japanese-language versions are promised for the end of this year.

Hoping to keep its place at the head of on-line video gaming, VR-1, INC. acquired game developer POW GAMES CO., LTD. and transformed the Tokyo developer of more than 100 games for multiple platforms into its Japanese subsidiary and the headquarters of the Boulder, Colorado firm's Asian operations. VR-1 JAPAN INC.'s first task will be to prepare its parent's VR-1 Conductor technology, which allows large numbers of players to contest with each other simultaneously on-line, for the debut of Internet-enabled, next-generation game consoles planned by SEGA ENTERPRISES, LTD. and SONY CORP.VR-1 Japan also will handle local licensing arrangements.

IMS HEALTH of Westport, Connecticut has decided to focus on its core competency health-care and pharmaceutical information systems by selling its local ERP marketing subsidiary, SSJ K.K., to ARGOTECHNOS 21 CORP.of Tokyo for a reported \$5.8 million. Both SSJ and IMS Health were spun out when COGNIZANT CORP.streamlined its business lines in 1996 and 1998, respectively.

An exchange rate of [acute accent]120=\$1.00 was used in this report.

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8/9/22 (Item 22 from file: 20)

04162899

Diamond Multimedia Announces Strategic Initiative to Develop Internet Music Portal

PR NEWSWIRE January 28, 1999

Journal Code: WPRW? Language: English? Record Type: FULLTEXT

Word Count: 991

RioPort.com Alpha Version Launched Today, Providing \mathbf{Links} to Authorized MP3

Content, Drawings for Cool Prizes and Free Membership
Registration

SAN JOSE, Calif., Jan. 28 /PRNewswire/ - -- Diamond Multimedia Systems, Inc., (Nasdaq: DIMD), a leader in PC multimedia and Internet connectivity, today announced a strategic initiative in **digital** music on the Internet. The company is launching an audio portal, http://www.RioPort.com, aimed at promoting legitimate Internet music by providing **links** to MP3 music and other audio content available on the Internet.

An alpha version for RioPort.com went live today and provides links to sites with which Diamond Multimedia has established partnership agreements to promote and link to Internet music and other audio content. Initial

partners include Acme Entertainment, Inc. Audible Inc., audiohighway.com, Audio Explosion, AudioSoft Corp., Bip!Com, Big Heavy World, Blues Review, BVB, Center of the World, CD Baby, DREG Records, eMusic, Fish of Death Records, Food Chain Records, GoodNoise, Koch Records, Laundry Room Records, Liquid Audio, MP3.com, Music Global Network, MusicMatch, Rap.com, Resort Records, SINC Recordings, Slick Music, Inc., The Tabloids, WinAmp and UBL.com. Visitors to the RioPort.com site can also register to win a variety of prizes including Diamond Multimedia's Rio PMP300 portable Internet music player, 16MB flash memory upgrade cards, the Diamond Monster Sound MX300, the SupraSonic 112K "shotgun" modem, music CDs, and high-capacity hard drives and fast CD ROM drives.

RioPort.com, Inc. will operate as a wholly owned subsidiary of Diamond Multimedia headed by Wade Meyercord, senior vice president of Diamond.

"RioPort.com is central to our long-term PC audio and Internet strategy," said Bill Schroeder, president and chief executive officer of Diamond Multimedia. "Our intent is to create an online presence that serves as a portal for the promotion of **digital** music on the Internet and the appliances available for playback of the music, such as our Rio line of **digital** media players. Further, by providing online services that enhance and simplify the use of our Rio PMP300, we increase the value our customers receive when they purchase the Rio."

"One of the most frequent questions customers ask is, 'where can I go to find legitimate, working content on the web'," said Meyercord.
"RioPort.com solves this problem by providing a one-stop site that points Rio users to a wide selection of content that's available, as well as providing information of value to Rio users and MP3 fans."

"The controversy in the music industry over the MP3 format has clouded the fact that it's a great tool for promoting independent artists, and it's proven successful for artist development when used in conjunction with traditional forms of promotion," said Steve Rennie, president of UBL.com, the leading independent music site on the web. "We intend to work closely with RioPort.com in promoting artists through the Internet and through their music portal."

Diamond Multimedia plans to fully develop RioPort.com over the next several months and expects to add features and expand the site in ways that will enrich the user's experience.

About Diamond Multimedia

Diamond Multimedia is a leader in PC multimedia and Internet connectivity, providing advanced products that enable desktop computer users to create, access and experience compelling news media content from their PC's and through the Internet. Products include the Rio series of Internet audio appliances; the Stealth and Viper(R) series of video accelerators; the Monster series of 3D gaming accelerators; the Fire series of professional graphics accelerators; the Supra(R) series of modems; and the HomeFree line of home networking products. Diamond's common stock is traded on the Nasdaq Stock Market under the symbol DIMD, and its web site address is http://www.diamondmm.com. The company's Internet music portal site is at http://www.RioPort.com.

How to Contact Diamond Multimedia

There are many ways to reach Diamond for sales support, technical assistance, driver updates and general information:

```
Internet Web Site: http://www.diamondmm.com
     Diamond Multimedia's Headquarters and Multimedia Division:
408-325-7000; Fax: 408-325-7070
     Communications Division (Supra brand modems) Main Phone Number:
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(France) +33-1-55381600
     Korean Office (Seoul): +82-2-551-2700; Fax: +82-2-551-2710
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     Australian Office (Sydney): +61-2-9460-2355; Fax +61-2-9460-2360
     Swedish Office: +46-417-40060; Fax +46-417-40054
     Latin America Office (Miami): 305-593-8777; Fax: 305-593-2779
     Mexico Office (Guadalajara):523-110-1144; Fax: 523-110-0744
     Product Support (Voice), United States: 541-967-2450; Europe (Germany)
+49-8151-266-330;
     Europe (UK) +44-1189-444444; Europe (France) +33-1-55381616; TDD/TTY
Support 541-967-2451
     Product Support (Fax), United States: 541-967-2401; Europe (Germany)
+49-8151-266-331;
     Europe (UK): +44-1189-444445; (France) +33-1-55381601
     Pre-sales Information: 1-800-468-5846
     24-Hour Fax-On-Demand Service: 1-800-380-0030
     Investor Relations: 408-325-7476; 1-888-474-3463 (U.S. and Canada)
     FTP site: ftp.diamondmm.com
     BBS: Europe (Germany) BBS at +49-8151-266333 (to 28.8 Kbps) or
+49-8151-266334 (ISDN); Europe (UK) at +44-1189-444415 (to 33.6 Kbps)
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announcement relates to products whose introductions are in North America.
The product name, contents, prices and availability may differ elsewhere in
the world according to local factors and requirements.
     Except for historical information contained herein, the matters set
forth in this press release, such as statements relating to the Company's
ability to successfully exploit technological and market developments, the
timing and success of new product introductions by the Company and its
competitors, and the Company's ability to invest in new technologies and to
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competitors, and the Company's ability to invest in new technologies and to enhance its existing systems are forward-looking statements that are subject to risks and uncertainties, including the impact of competitive products and pricing and alternative technological advances, the timely and successful development and market acceptance of new products and upgrades to existing products, and other risks as detailed from time to time in Diamond Multimedia's SEC filings, including its most recent Forms 10-K and 10-Q.

/CONTACT: Lorraine Comstock of RioPort.com, Inc., 408-325-7346,

/CONTACT: Lorraine Comstock of RioPort.com, Inc., 408-325-7346, lorraine@RioPort.com; Mary Medeiros of Diamond Multimedia, 408-325-7350, maryme@diamondmm.com/ 16:55 EST

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Country Names/Codes: United States of America (US)

Regions: Americas; North America; Pacific Rim

Province/State: California

SIC Codes/Descriptions: 3577 (Computer Peripheral Equipment); 3570 (Computer & Office Equipment)

8/9/23 (Item 23 from file: 20)

03019137

BRITISH SKY BROADCASTING: SkyDigital A triumph of technological teamwork

M2 PRESSWIRE October 05, 1998

Journal Code: WMPR? Language: English? Record Type: FULLTEXT

Word Count: 1233

The launch of SkyDigital represents a remarkable breakthrough in **digital** technology - the culmination of an investment running to more than GBP 100 million and 800 person-years.

The development work has been led by Sky's **Digital**Engineering and IT Groups and has been supported by a number of leading hardware and software suppliers working together in a unique partnership.

Work began in earnest more than 3 years ago on more than 30 distinct systems which make up the SkyDigital network, from play-out centre to TV screen.

"We were in totally new territory," says Sky's Director of Engineering Geoff Walters. "Key systems simply did not exist - we, had to create them from the ground up."

A result of this 'from scratch' approach to designing fully compatible hardware and software systems in tandem is the absence of built-in obsolescence within SkyDigital. Software upgrades are unlikely to require hardware adaptations.

In its role as the central project design authority, Sky has built a GBP 3 million laboratory to test exhaustively every component of the SkyDigital package to ensure that all products coming to market now and in the future are fully compatible and capable of delivering all SkyDigital services.

An example of Sky's dynamic approach is the development of the Electronic Programme Guide (SkyGuide). Work on this vital tool, which enables viewers to access Sky's **digital** services quickly and easily, began some 3 years ago. Sky did not consider any existing EPGs to be sufficiently sophisticated or user-friendly, so the **Digital** Engineering and IT Groups set out to create a bespoke system from the ground up. Consumer tests, carried out by Edinburgh University among other have confirmed that viewers find the SkyGuide exceptionally intuitive and easy to operate.

Sky's **Digital** Broadcast Centre (DBC) at Osterley, West London, has hailed been as the most advanced TV play-out facility in the world. The result of a three year, GBP 60 million investment, the DBC is a state-of-the-art facility at the heart of Sky's **digital** transmission service. The DBC began broadcasting with more than 100 **digital** channels on June 22nd 1998.

Digiboxes The first set-top boxes - or digiboxes - are designed and manufactured by Pace, Panasonic, Grundig and Amstrad. Beneath the four individually-styled exteriors lies a common specification with the power to turn the TV set into the hub of the home's entertainment and interactive services.

Based around a high-speed ST20 processor from ST Microelectronics and incorporating a V.34 (28.8kbps) modem, 4 Megabytes of CPU dedicated DRAM memory and a further 4 Megabytes of flash memory, the digiboxes are capable of decoding MPEG-2 **digital** video and audio as well as processing

additional services such as the SkyGuide EPG and future interactive services. The digiboxes incorporate an operating software system based on a customised version of OpenTV's advanced set-top box operating system known as OpenTV-FX (also known as OpenTV 1.2).

Digiboxes are fully upgradeable using software which can be downloaded by satellite. This might include enhancements to the operating system or to the SkyGuide. Thanks to its two banks of flash memory, the Digibox can handle these upgrades in 'background mode' enabling the viewer to continue watching programmes while the upgrade takes place.

Twin SCART outputs ensure simple high-quality connection to TV and VCR using PAL or RGB signals. In addition a UHF aerial loop-through facility is provided to allow compatibility with TVs and VCRs not fitted with SCART sockets. A **separate** high- speed **data** port allows the potential for interoperability with other **digital** services including **digital** terrestrial television (DTT).

A second RF coaxial output offers the potential to connect the satellite system to another TV via SkyDigital's unique 'TV link' feature, designed in conjunction with Global Communications, which allows remote control signals to be carried down the same coaxial cable that carries the RF signals. This enables viewers to enjoy SkyDigital programmes in more than one room at a time.

Two direct in/out ports are included - one an RJ11 telephone terminal and the other an RS232 serial port. The telephone terminal is linked with the supplied cable to the customer's existing phone line and allows two-way communication with Sky through the digibox's built-in modem.

Sky Box Office's pay-per-view selections, package choices, billing enquiries and interactive services can all be fed through this connection.

The RS-232 port is a standard 9-pin serial connector under the control of the digibox's processor. In the future this port be could be used to output on-line information received via the digibox's modem to a PC.

Integrated TVs Eight leading manufacturers have announced plans to produce TV sets with integrated Sky technology. Toshiba, Panasonic, Philips, LG, Grundig, Amstrad, Sharp and Samsung intend to produce TV sets containing integrated Sky Digibox technology, and able to support all the SkyDigital services.

The Mini-Dish Made in the UK initially by Channel Master, the stylish elliptical design is only 43cm tall (compared with a standard 60cm analogue dish). The mesh construction further camouflages the dish's installation - allowing the wall or paintwork behind to show through.

Other companies including Lenson Heath/Triax are expected to launch similar designs in the coming months.

The LNB Extracting maximum performance from the small dish, the digital LNB has been manufactured to accurately match the Channel Master mini-dish both technically and cosmetically. Cambridge, the first company to manufacture the matching LNB and elliptical shaped feedhorn, has worked closely with Channel Master and produced an aesthetically pleasing product with the same dark grey livery and a single arm mount.

Other companies, including Grundig, are working on similar designs expected to be available shortly.

The high gain Universal LNB has a typical noise figure of 0.9dB and is designed, along with the dish, to minimise any effect the elements may have on its reception and longevity.

The Sky Remote Control Using IR codes supplied **under**licence from Universal Electronics Inc., Sky's custom remote
control will operate any of the digiboxes as well as 95 per-cent of TVs
sold in the UK (most TV functions are replicated on the handset including
channel-scrolling and direct channel access, volume control and teletext
keys)

The remote control is ergonomically designed to be as easy to use as possible. It will give fast access to all the features of SkyDigital including the EPG, pay-per-view functions and future interactive services

and features a colour-coded layout and special cursor control for easy navigation.

The remote control handset has been jointly designed by Sky and UK-based Frazer Designers to be one of the slickest feeling and coolest-looking remotes available. The curvaceous body sits comfortably in either the right or left hand with easy thumb access to the buttons for single-handed operation.

Colour coding highlights the most-used functions including the traditional red, green, yellow and blue Fastext keys. The central layout has directional keys relating directly to cursor movement for intuitive control of the SkyGuide electronic programme guide and interactive service menus.

An information key ("in") allows viewers to call up extended details of each TV programme. Having a single remote that is compatible with all makes of Digibox has the added benefit of making replacement easy.

The remote is being produced initially by Philips, which has licensed its RC6 infra-red control technology to Sky for use in all current and future IR connection devices.

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Company Names: BSkyB - British Sky Broadcasting Group PLC

Descriptors: Company--News

Country Names/Codes: United Kingdom (GB)
Regions: Europe; European Union; Western Europe

SIC Codes/Descriptions: 4841 (CableandOther Pay Television Services)

8/9/24 (Item 24 from file: 20)

02782435

Business: Kingfisher may bait hook for VCI

ROBERT POWELL, Business Editor HERALD (UNITED KINGDOM), p 23

September 10, 1998

Journal Code: FGH? Language: English? Record Type: FULLTEXT

Word Count: 425

KINGFISHER, which owns Woolworths, Comet and the MVC chain of music stores, may trump Scottish Media Group's Pounds 32.1m agreed bid for video and music publisher VCI.

The retail giant, which claims to be the UK's largest seller of music CDs, computer games and videos, said yesterday that it was considering making a cash offer for VCI at a higher price than Scottish Media Group's bid of 80p per share.

VCI shares, which have fallen steadily from a peak of 350p two years ago, jumped 12.5p to 91.5p in expectation of a higher bid.

Scottish Media, which owns The Herald as well as Scottish and Grampian Television, launched its recommended cash offer on Tuesday, alongside a

strong set of interim results.

It went on to buy a 26.4% stake in VCI on the open market in an attempt to ward off other predators.

The Glasgow-based television, newspaper and magazines group said it was attracted to VCI because of the company's strong portfolio of titles and intellectual property **rights** and its **links** with a wide range of **content** providers. These include television and film companies and Manchester United football club.

VCI makes Thomas the Tank Engine videos, for example, **under** licence from the copyright owner Britt Allcroft and distributes them to retailers.

Kingfisher, which controls nearly 15% of the UK video, computer games and music CD market, is mainly interested in VCI is as a distributor.

The retail group sells home entertainment products to the public through Woolworths, Comet and its rapidly expanding chain of MVC music stores and distributes them to other retailers through its Entertainment UK subsidiary.

'VCI is such a good fit with our position in entertainment in the UK,' a Kingfisher spokes-man said.

'It would strengthen our position in that market.'

However, VCI's board yesterday urged its shareholders to do nothing until Kingfisher clarified its intentions.

Scottish Media, meanwhile, was sticking to the terms of its original offer.

A company spokesman said: 'We note the announcement from Kingfisher and we will go ahead with our own offer to VCI shareholders as previously planned.'

Scottish Media last year built up a large stake in Ulster Television with a view to eventually taking over the Northern Ireland ITV company. But it sold out at a Pounds 3.5m profit after Ulster brought in the Canadian broadcaster Canwest as a white knight.

If Kingfisher makes a successful knockout bid for VCI, Scottish Media will at least have the consolation of a second windfall from selling its 10.3 million shares in the company at a good mark-up.

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Company Names: Scottish Media Group PLC; Kingfisher PLC; VCI Plc

Descriptors: Acquisitions Mergers & Takeovers Country Names/Codes: United Kingdom (GB) Regions: Europe; European Union; Western Europe

SIC Codes/Descriptions: 7812 (Motion Picture & Video Production); 3652 (Prerecorded Records & Tapes); 5735 (Record & Prerecorded Tape Stores); 2700 (Printing & Publishing); 4800 (Communications);

5734 (Computer & Software Stores)

8/9/25 (Item 25 from file: 621)

01530361 ? ?**Supplier Number:** 47363638

Sprint Opens Drums Platform to PC/Macintosh Communities; New ISDN Service Offers Fully Integrated, Managed Solution For Video File Transfer, Editing

PR Newswire, p 0505DCM041

May 5, 1997

Language: English ? ?Record Type: Fulltext

Document Type: Newswire; Trade

Word Count: 1489

Text:

/Editor's Note: In response to AT&T's announcement today of an ISDN video

file transfer capability, Sprint is reissuing its April 7, 1997 announcement

about its industry-leading video file transfer, editing and collaboration

service, known as Drums(R). Drums, the only totally integrated, fully

functional offering of its type in the marketplace, now supports ISDN and is

available to users of Silicon Graphics, PC and Macintosh(TM) stations./
LAS VEGAS, April 7 /PRNewswire/ -- Sprint (NYSE: FON) today announced
that its industry leading creative collaboration tool, Drums, is available
for the first time to PC and Macintosh users.

Sprint has entered an agreement with e-motion, Inc. to license CreativePartner, the company's flagship intelligent distribution system for content collaboration. The integration of CreativePartner into Drums will bring the benefits of the Drums network -- such as dramatic cuts in commercial time, travel and shipping costs -- to the PC and Macintosh communities.

Beginning this month, CreativePartner will be integrated into the Drums palette of options and will enable PC and Macintosh users to take advantage of **other** Drums features such as video **file** transfers, collaboration and editing/annotation tools and the power of the world's most advanced and reliable network -- Sprint's 100 percent all-digital, fiber-optic SONET-ring based network.

In another move to open the Drums community to other market segments, Sprint also announced today support for Integrated Services

Digital Network (ISDN) access. ISDN will offer enhanced security and measured billing, allowing customers to pay for the services they use at the rate they use them.

PC and Macintosh users can use Drums from Sprint to edit and annotate video files and then to transfer video e-mail between locations around the world using Sprint's secure global Intranet. The Drums broadband network augments collaboration and saves a tremendous amount of time over traditional overnight delivery.

The Drums network is the first online community for advertising and entertainment professionals that combines collaborative and communications tools to make the creative process easier and faster.

Drums has been evolving in the creative community for almost three years, as Sprint has worked with producers, editors, directors and other creative groups to develop and test the capabilities the community said it wanted and needed. After extensive beta testing, Drums was made generally available in March 1996. Since then the community has tripled in size and continues to expand.

"These platform and network enhancements open the Drums community to new market segments," said Robba Benjamin, senior vice president and chief architect of Sprint's multimedia strategy. "By making CreativePartner an integral part of the Drums network, we are extending our vision of anytime, anywhere communication and collaboration to the PC and Macintosh communities."

In addition to expanding the Drums community to include PC and Macintosh users, the integration of the CreativePartner software into Drums will facilitate the review and edit cycle for video productions. Upon receipt of a video file over the secure network, users can make comments and suggestions, frame by frame, right on the screen using text,

Post-It(TM) notes, graphic pens or voice. For increased efficiency, these annotations are sent over the network as a **separate file** and are combined with the original video.

"The Drums network changed the post-production and creative process forever by breaking down the barriers of time and place," said Angela Rizzo, director of Drums. "By incorporating the intelligent distribution and editing/annotation capabilities CreativePartner offers to PC and Macintosh users, Drums offers a much larger creative community the ability to communicate and collaborate."

e-motion announced this week an agreement with Silicon Graphics(TM) to make CreativePartner available on the Silicon Graphics 020 platform, enabling cross-platform collaboration between PC and Macintosh computers and Silicon Graphics workstations.

"e-motion envisions an environment where creative content is available for collaboration independent of the user's location, time zone, computer platform or technical skills," said John Walsh, president and CEO of e-motion. "Sprint's proven reliable Drums network, combined with our CreativePartner software, provides the ideal vehicle to make this vision a reality today."

Drums customers looking for high bandwidth and high performance can choose real-time Drums network solutions combining the power of Indy workstations from Silicon Graphics and broadband connections. The Drums network also supports the newly released Silicon Graphics 02 R5000 SC(TM) workstations.

Drums is a one-of-a-kind collaboration toll that has constantly evolved to offer its expanding community the kinds of services creative organizations want and need.

"Drums' customers want choices that make sense based on specific needs," said Benjamin. "Sprint's strategy from day one has been to deliver a total collaborative solution that meets the needs of the creative community."

Named after the way people first communicated over long distances, Drums is quickly becoming the product of choice for film studios and production companies looking for ways to save time, cut costs and be more creative.

Current customers include a high-profile mix of leading edge film, advertising and special effects studios, including: 525 Post, Cutters, The Discovery Channel, General Motors, Grey Advertising, J. Walter Thompson, and MCA/Universal.

One recent milestone was the use of Drums on the set of MCA/Universal's action-adventure film "Dante's Peak."

"Based on our experience with Drums, we're excited about its potential to change the film-making process for the better," said John Swallow, vice president of production technology for Universal Pictures. "In our business, we have to be good, fast and profitable. This technology can help us be all those things."

Patrick Mooney, a line producer at the **digital** effects studio Kleiser- Walczak, agrees. "Drums is shaping up to be an important key to a theme park project we're doing with MCA/Universal for their Islands of Adventure park, slated to open in Orlando in late 1998," he said. "With four sites involved - Massachusetts, California, Florida and a fourth site yet to be determined - Drums is built into the production schedule. The logic of the Drums network is quite clear."

New applications and features such as an integrated session timer and expanded search capabilities make the Drums interface even more intuitive and easy to use. The updated Drums software palette includes new options that allow the customer to choose between real-time or non-real time collaboration, as well as new directory services that will expand search capabilities.

Options and enhancements to the multimedia search engine include the addition of 1,300 Avid AVR-5 images from Energy Film Libraries and more intuitive indexing of images. The new Graphical User Interface (GUI) allows

the user to create new folders and drop off and pick up files in a point and click environment.

"Sprint will continue to provide its customers with the technology and functionality they require to challenge creative minds and change the creative process for the better," said Benjamin. "The power of the Drums network lies not only in the technology infrastructure that Sprint delivered, but also in the creative energy that breathes life into it each time Drums community members meet in this virtual workspace."

Today Sprint also announced the Drums Roll (SM), a portable workstation designed to streamline production for film companies in remote locations.

"The enhancements we make today will open new and exciting possibilities for the film and advertising creative community," said Rizzo. "The benefit of a true community is the strength of its members. That is the power of Drums."

e-motion, Inc. is the leading supplier of intelligent distribution systems for publishing, distributing, and collaborating on electronic content over local and **remote** network

links. The company's market coverage consists of North America, Europe, Japan and the Pacific Rim. Customers include some of the largest advertising, publishing, entertainment and video production companies in the world. E-motion is based in Palo Alto, CA; telephone (415) 812-9000; fax (415) 812-9009; e-mail robert nunes@emotion.com; Web site - http://www.emotion.com.

Sprint is a global communications company — at the forefront in integrating long distance, local and wireless communications services, and the world's largest carrier of Internet traffic. Sprint built and operates the United States' only nationwide, all-digital, fiber-optic network and is the leader in advanced data communications services. Sprint has \$14 billion in annual revenues and serves more than 16 million business and residential customers.

Visit Sprint's Web site www.sprint.com. For Drums information visit www.sprint.com/drums/

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